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Labor in the South

LABOR costs in the South have been rising. But mechanical appliances for production of cotton, sugar and rice may soon put a brake on this trend; or it may at least provide plentiful labor for the tremendous expansion now under way in the Southern pulp and paper industry.

This industry may have the chance to perform a real service in the South by providing jobs for many thousands of displaced farm workers.

Tom Linder, agriculture commissioner for Georgia, has estimated that two-thirds of the 8,000,000 farm laborers will be displaced in the adoption of the flame cultivator and a mechanical cotton picker. This displacement does not take into speculative consideration expansion of cotton production on flat or near-flat lands that may be realized because of ability of the South to meet or set a low world price for cotton staple.

The flame cultivator will take care of 20 acres daily at a cost of 49c per acre, as compared to the expense of hand chopping at $4.00 per day where one hoe hand takes care of three-quarters of an acre per day.

The flame cultivator, which also takes care of artificial defoliation in preparation for mechanical picking, is tractor drawn. The mechanical cotton picker performs the operation at a cost of $3.00 to $5.00 per bale, which is way below the expense of hand picking.

The displacement by mechanical aid of hand labor in cotton is being duplicated in the production of sugar cane and rice.

Good forest management and plentiful labor should provide a sound basis for (well-planned) timber-backed expansion in the South.

Canada-Alaska Mill Rumors

A WIDELY publicized report quoting George Sundborg of the Alaska Development Board as saying the Canadian government would subsidize a pulp or pulp and paper mill project in British Columbia by offering low-cost power from Campbell River has been investigated by the staff of PULP & PAPER INDUSTRY.

Mr. Sundborg is probably confused on this point. He may be thinking of the new Bloedel, Stewart & Welch pulp mill rising at Port Alberni, B. C., which is to receive power at regular competitive rates from the British Columbia Power Commission's new hydro plant at Campbell River. There is nothing new in this, of course, as we have reported it several times. But the Canadian government certainly wouldn't have anything to do with it.

There is also the possibility of another mill on the west coast of Vancouver Island, but this too would probably get its power from the Power Commission at Campbell River.

Mr. Sundborg had conjectured that this British Columbia project would "worry" persons interested in an Alaska mill.

There are still many rumors regarding Alaska. A great deal of experienced but entirely unofficial observation is coming around to the point of view that a mill should be built where no "company town" would have to be built.

Likeliest of such spots are, perhaps, Sitka and Petersburg, Alaska. Great power resources at Sitka, built by the Navy, might be available to a pulp and paper industry.

In This Issue—

The Story Behind TAPPI Gold Medal

Just momentarily, you may be sure, PETER J. MASSEY, TAPPI Gold Medal Winner of 1947, is shown relaxing here for our photographer. He may be thinking of how "right triumphs in the end" or some such idea—and who can blame him. The accompanying article will explain.

Last month PULP & PAPER INDUSTRY announced that Peter J. Massey, pioneer of high speed on-the-machine coating of paper, was honored by selection for the 1947 Gold Medal of TAPPI. This award was made to him the last week of February at TAPPI's convention in the Commodore Hotel in New York.

There are, of course, many reasons that may have motivated the committee which voted this honor to Mr. Massey, ranging from his many achievements in the technical field to his progressive and interesting ideas regarding management and labor relations.

We can't claim to have probed the minds of those who voted for him, but we think it is about a 100 to 1 shot that the real reason for this honor for Mr. Massey is his record as an outstanding pioneer in high-speed on-the-machine-coating of paper on a mass production basis.

This work was done a decade or more ago. This is, perhaps, a belated but nonetheless enthusiastic recognition for the man who only a short time ago left a Chicago business to become general manager of the newly organized Bryant Division of St. Regis Paper Co. Here's the story behind the Gold Medal:

Back in 1936, Life magazine made its appearance. Slick paper magazines, for bettter reproduction of engravings and type, were just showing signs of the tremendous appeal they have today. But the paper industry, aside from a few not very effective exceptions, was not aware of the great demand that was coming. It still took a long time to dry ink on coated paper, for one thing. And besides mass production of coated paper was hardly recognized as a possible future need.

Mr. Massey, with his original ideas for coating equipment rolls in position between the wet and dry ends of the paper machine, and for the special pre-working preparation of coating film and its application to a continuous web of paper, was like a Moses crying in the wilderness.

But another man who had vision was George Wilson Mead, president and founder of Consolidated Water Power & Paper Co., at Wisconsin Rapids. Mr. Mead was accustomed to pioneering—he had already instituted several new practices in the industry. It was not long before he and Mr. Massey were sharing a dream and Mr. Massey's first and successful experiments were carried out in the Consolidated mill with Mr. Mead's full backing.

Today Consolidated is one of the outstanding producers of high speed machine coated paper. This year its process is being inaugurated for the first time on the Pacific Coast at the Crown Zellerbach West Linn, Ore., mill, whose production when it gets under way later this year, will be shared by Time-Life magazines and Curtis Publishing Co. In Los Angeles a big printing plant will print the western circulation of Time and Life on this paper and deliveries to subscribers will be made the same day as in the East. Another new installation of the process is being made at the Palmer, N. Y,. mill of International Paper Co., and there are a number of other licenses in this country and abroad.

Mr. Massey was born in Jacksonville, Fla., June 29, 1883.

TAPPI Selects Worthen Brawn As New National President

(See cover picture)

From the extreme Northeast coast of the United States, TAPPI has chosen its new national president. In electing Worthen E. Brawn to that office for the 1947-1948 term at its annual convention in the Commodore Hotel, New York City, the last week of February, the great TAPPI organization has given recognition to a Maine Yankee who has 30 years of rich experience behind him as both an operator and a pioneer and trail-blazer in pulp and paper manufacture.

The background scenes of our cover picture of Mr. Brawn indicates the varied experiences he has had in this industry, but—like so many other New Englanders—he has not gone very far afield to get this experience. He found them, with true Yankee discrenment, right in his own native state of Maine, where he has lived most all of his life. For in electing him, TAPPI also has honored a state that ranks second only to the state of Washington in pulp production and is third in paper.

Westward Ho!

CHARLES GRONDONA, who has become an Assistant Resident Manager to J. E. Hanny, Resident Manager of the Crown Zellerbach Corp., mill at Camas, Wash. One of the most diversified and largest mills on the North American continent, it makes sulfite, sulfate and groundwood pulps and papers. To its great battery of machines, it has added this year a facial tissue machine and later will add a specialty all-purpose machine.
Mr. Grondona was formerly Manager of the Crown-owned tissue mill at Carthage, N. Y., and later was stationed in the New York office of Crown Zellerbach Corp. He was assigned to help start up paper industries in Europe after the war by the Combined General Staffs of the Allies.
Mr. Grondona left New York Jan. 21, hopeful of finding a home in either Camas or nearby Portland, Ore. There are two other veteran Assistant Resident Managers at Camas—G. W. Charters and A. G. Natwick.

For 26 years he has been with just one company—the Pejepscot Paper Co., of Brunswick, Maine. He started there as superintendent of research and for nine years he has been its general superintendent. This 100-ton-a-day groundwood and book paper and specialty paper mill was bought by Hearst Publications last year and part, at least, of its three-machine production is to be converted to newsprint.

Mr. Brawn is the inventor of a process for imprinting colored designs on paper during manufacture on the paper machine. Thus, he was chiefly responsible for some of the specialty products of his mill, including colored mimeograph, colored poster and other colored papers.

His experience ranges from operating mills producing groundwood and sulfite pulp making newsprint to specialty groundwood papers of all grades, as well as specialty papers in both kraft and sulfite grades. It is this wealth of experience in both technical and operating fields that so many of his colleagues recognized as especially fitting him to head up TAPPI in a year in which an accelerated and general advancement of the industry is anticipated.

Mr. Brawn was born in Bath, Maine, and—like many other papermakers — was graduated from the University of Maine. He received a degree in chemical engineering in 1917. He entered the University of Maine in the year that it established the first four-year college course in pulp and paper manufacture on the continent.

We have said that Mr. Brawn rarely wandered from his native state, but there was one "lapse" and oddly, it took him to a distinguished Ontario company which at the same time was a training ground for some other outstanding leaders in this industry—to the Spanish River Pulp & Paper Co. Among Spanish River "alumni" are Ralph Hayward, now president of Kalamazoo Vegetable Parchment Co., and Robert B. Wolf, who has retired as manager of the Pulp Division of Weyerhaeuser Timber Co. Like Mr. Brawn, Mr. Hayward and Mr. Wolf have been active leaders in the TAPPI organization for about 30 years and Mr. Hayward is a past president and Mr. Wolf a past Gold Medal winner.

CHARLES H. REESE, who has been named Vice President in Charge of Manufacture at Nekoosa-Edwards Paper Co., of Nekoosa and Port Edwards, Wis., according to J. E. ALEXANDER, President and General Manager. Mr. Reese has long served as Mill Manager of the sulfate, sulfite and papermaking operations on the Wisconsin River.

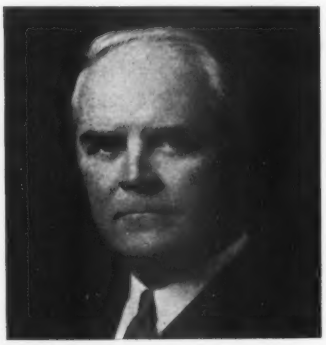
Mr. Brawn went to the Spanish River Mills in Sault Ste. Marie as assistant chemist upon his graduation in the same year that Mr. Hayward graduated from the University of Michigan and went to the same company as engineer under Mr. Wolf, then manager of the mill at Espanola, Ont. Brawn later that year became resident chemist at the Sturgeon Falls, Ont., mill of Spanish River Pulp & Paper Mills, Ltd., and remained there until called to Brunswick in 1921.

Mr. Brawn is married and has one daughter, Mrs. C. W. Waller, Pearl River, N. Y., and one grandson.

When away from mill duties, he commands considerable respect from his cronies as a fresh water fisherman who especially knows Moosehead Lake, Rangeley Lakes and Sebago Lake in his Maine neighborhood from which he has brought home many a trout or salmon.

Big Paper Week in New York Climaxes Year of Progress

APPA Activities Broadened Under Robertson
Nicholson's Administration of TAPPI Reviewed



REUBEN B. ROBERTSON,
President of Champion Paper & Fibre Co., who presided over American Paper & Pulp Association convention at the Waldorf in New York in last week of February. He was to carry on as President of APPA for another year.

Once again, for the last week in February, the Commodore and the Waldorf-Astoria in New York City became the center of the world's pulp and paper industry.

Beginning on Sunday, Feb. 23rd, for the American Paper & Pulp Association, and on the 24th for TAPPI, the two programs carried throughout the week. As we go to press, the attendance record has not been finally checked, but it is believed that it broke the all-time record set in 1946.

The AP&PA luncheon was held at the Waldorf on Wednesday, the 26th, with President Reuben B. Robertson, head of Champion Paper & Fibre Company, presiding; and the annual TAPPI luncheon was held in the Grand Ballroom of the Commodore with G. W. E. Nicholson handling the gavel and Gerald Wendt, editor of *Science Illustrated*, as the principal speaker. High point of this get-together was the presentation of the TAPPI Gold Medal to Peter J. Massey by Lyman Beeman who, like Mr. Massey is, a well known executive of the St. Regis Paper Company.

On the evening of the 25th the New York Association of Dealers in Paper Mill Supplies held its annual dinner at the Commodore, and on the same day New York State College of Forestry alumni gathered at a luncheon at that hotel. In addition to the fixture meetings of the various affiliates of AP&PA there were at the Waldorf important meetings of the National Council for Stream Improvement, on Feb. 25th; the American Forest Products Industries, Inc., on the same date; the United States Pulp Producers on the 23rd; the Salesmen's Association on the 23rd; the Association of Pulp Consumers on the 25th; the American Pulpwood Association on the 27th; and the Newsprint Manufacturers on the 25th.

The TAPPI program bore heavily on engineering and pulping, following trends well defined in the industry in the past few years. J. W. Hemphill, Johns Manville Company, E. A. Warner, Robert Gair Company, Inc., and E. F. Burns, International Paper Company, were chairmen of the Engineering Session and they are veterans of the first TAPPI meeting ever devoted entirely to engineering (Nov. 1946 issue), at Milwaukee last Fall. R. M. Drummond, International Paper Co., and John F. Campbell, The Flintkote Co., were co-chairmen of the Mechanical Pulping Session, while G. H. McGregor, Minnesota & Ontario Paper Co., again showed his strength at handling an Acid Pulping Session. W. D. Harrison, Ecusta Paper Corp., chairmanned the Pulp Purification meeting.

Gunnar Nicholson rounded out an active year as head of TAPPI and could look back on it with a sense of real accomplishment. He had begun the tradition of three Fall meetings rather than one, and for the first time gave engineer members of TAPPI a meeting of their own which was tremendously successful. Even before taking the presidency he had done a great deal to bring TAPPI into the South. When he was vice president he personally organized and led toward the staging of the first alkaline pulping-kraft chemical byproducts convention at Savannah. This was in the Fall of 1945 when Savannah was still his home town, but now he is a New York resident and divides his time between the Woolworth Tower and Georgia. The tradition was carried on last year in New Orleans and

GUNNAR W. E. NICHOLSON (left), Vice President in Charge of Manufacturing, Union Bag & Paper Corp., who presided over the TAPPI Convention in New York Feb. 24 to 27 and who turned over the Presidency of that organization to W. E. Brawn, General Supt., Pejepscot Paper Co.,. Brunswick, Me. (whose picture is on the cover of this issue). R. G. MACDONALD (right), Sec'y.-Treas. of TAPPI who again supervised arrangements for the multi-"paper" studded convention held in the Hotel Commodore, as in past years.

appears slated for Asheville, North Carolina, next Fall. And the Engineers are set for Schenectady, N. Y., hot on the trail of a second successful meeting.

There have, of course, been many active presidents of TAPPI, but there was no question but what Gunnar Nicholson's handling of the helm reverberated throughout the technical association in 1946. Unquestionably he was one of the busiest men in the industry last year, for in addition to his duties with Union Bag he covered the TAPPI meetings across the continent, north to south, and east to west, and sandwiched in a trip to the Scandinavian countries.

Robertson's Term

The president of AP&PA, Reuben B. Robertson, carries on for another year and the concensus at Paper Week was that if his second term matched the first it would be an excellent record, indeed.

The transition from war to peace was not easy for AP&PA which, unlike the technical association, faces the problems of top level management. With Mr. Robertson as its chief, AP&PA got through the hectic

months which saw the demise of OPA, and with a minimum of difficulty.

A good forestry man from 'way back, Mr. Robertson did not hesitate to speak out forthrightly on government - in - business, or on broader trends which threaten private enterprise. It may have been coincidence that AP&PA launched out on a specific public relations program during his first term, but it was certainly fitting, for Mr. Robertson has been a dealer in the industry in the realm of personnel and human relationships. And as a practitioner of good forestry methods, he sat well in the chair of an AP&PA which now is showing more interest than ever in forestry and logging and coordination with the other wood-using industries.

TAPPI Technical Papers

TAPPI had its usual heavily-charged and varied program for four busy days in the Commodore ballrooms and meeting rooms, beginning Monday, Feb. 24. On the opening round, following President Nicholson's and Secretary Macdonald's reports, technical aspects of merchandising paper was discussed by John W. Crosson of Mead Sales Co., and Dr. E. C. Jahn told about the emphasis on research in Sweden, which has previously been reported fully in these columns by other travelers from Scandinavia.

Engineering, under J. W. Hemphill, of Johns Manville, and J. E. A. Warner of Robert Gair Co., was big drawing card of section meetings that day, with Richard Nelson, of Kimberly-Clark, telling about spot-conversion drives, and Reliance engineers discussion spot conversion for adjustable speed. Westinghouse offered a paper on heat balance and machine drive, Link-Belt on electro-fluid drive, and Strathmore Paper Co.'s experience with Sandy Hill-Spencer dandy roll drive was prepared by Henry Johnston of that mill.

Others meeting that day were the water, fibrous agricultural residues (straw chiefly), and fundamental research groups. At the first named, Miss Louisa McGrath was down for a paper on determination of biochemical oxygen demand.

On Tuesday, sulfite and groundwood pulping; pulp purification; packaging tests and evaluations, and color engineering and standards provided lively session subjects, while A. E. Montgomery of J. O. Ross led a round table on paper

WILBUR F. GILLESPIE, Tech. Dir., Gaylord Container Corp., Bogalusa, La., elected Vice President of TAPPI and now in line to be next President.

drying problems. R. M. Drummond of International and John Campbell of Flintkote were billed as leaders of the groundwood meeting which was featured by an appraisal and discussion of the rapidly growing insulating board industry with C. G. Muench of Celotex, Basil Brown of Johns-Manville, Glenn Kimble of M & O Paper Co., and Dick Kehoe of Paper & Industrial Appliances as participants.

George McGregor, research man from M & O Paper Co., International Falls. Minn., was again in his customary role of acid pulping moderator and Rayonier, St. Regis and Marathon were among organizations contributing to this session. At the purification session, Oliver Sprout, Jr., and Tom Toovey of Penn Salt, discussed chlorination, and W. P. Lawrence of Champion talked of bleaching. Ward Harrison, assistant manager at Ecusta Paper Corp., and formerly of Camas, Wash., was chairman.

As was the case throughout the war, the container companies kept their various testing for vapor permeability, etc., au courant with the Marathon Corp., Paper Institute and some instrument firms were participants.

On Wednesday there was a coating session. It was notable for the omission of some of the most highly competitive subjects in this field. As far as the big mass producing coated paper mills are concerned, it was sufficiently innocuous.

On this day, T. A. Pascoe, technical director of Nekoosa-Edwards Paper Co., led off with his very technical statistics and control session while elsewhere the kraft industry and de-inking interests had a joint meeting led by K. G. Chesley of Crossett Industries of Arkansas and Fred Clark, New York engineer.

Alkali and heat rocevery in de-inking at the I. P. mill at Niagara Falls, recausticising practice offered by Dorr Co.; removal of salt cake fumes from gases by scrubbing at Thilmany Pulp & Paper Co.; refining with Sutherlands at high temperature and alkalinity and sulfate pulping of Pacific Coast fir and sawmill waste were a "star-studded" program for this session.

The plastics interests had their day, too, on Wednesday, with American Cyanamid Co. offering papers on low pressure paper resins and the effect of Melamine resin on fiber bonding and National Oil Products on emulsions.

E. F. Burns, International's chief engineer, and Mr. Hemphill were listed for the moderators of another engineering meeting which was to be a round table on the previous session on this subject.

Another fast-advancing phase of this industry, instrument control, held forth that afternoon with papers by Robert Brown of Stadler-Hurter engineering firm of Montreal; chart records reports from Gulf States mill at Tuscaloosa, and an American Cyanamid paper on pH measurements and control.

The final day, Thursday, the papermakers got busy. A white water handling symposium featured talks by O. E. S. Hedbring of United Paperboard of Thomson, N. Y., and formerly of Tacoma, Wash., and A.

E. W. TINKER (left) Executive Secretary, American Paper and Pulp Association, New York, and W. F. McCULLOCH, Chairman, Columbia River Section, Society of American Foresters. Mr. Tinker was main speaker at dinner meeting in Portland, Ore., recently of the Western Forestry and Conservation Association.

Mr. Tinker said the pulp and paper industry of the U. S. probably will be using 30,000,000 cords annually by 1960—about twice its present useage—but by good engineering, skill and diligent effort, he predicted mills could use that amount perpetually. He said it is time to quit quibbling over minor points and to develop a new forestry program as we have outgrown the one used for the past 25 years.

New Office at Texas Mill

Work is progressing at a satisfactory rate on enlargement of the productive capacity of Southland Paper Mills, Inc., Lufkin, Texas. On a recent visit there, PULP & PAPER INDUSTRY'S editor took this picture. Above is photograph of new office building. The expansion program will be completed by end of 1947 with addition of a second newsprint machine. Present capacity of Pusey & Jones Fourdrinier is 160 tons daily of newsprint and kraft wrapper.

L. Sherwood, technical director of Sutherland Paper Co., and an Oliver saveall report from Continental's mill in Jersey.

Preparation of papermaking materials was another final day session, with P. P. Gooding of Strathmore and John Tongren of Hammermill as joint-chairmen. Three papers by Hercules Powder Co. representatives highlighted this meeting on rosin and carboxymethylcellulose. Mr. Pascoe was on this program, too, for a study of chemical versus physical properties of pulps.

The luncheon that day was the grand finale, as usual, with Mr. Nicholson presiding and the usual array of loyal and longtime devotees and leaders of TAPPI at the head table. New TAPPI sections in Chicago (the old Chicago Professional Paper Group which meets every third Monday in Chicago Bar Association) and in Ohio were welcomed and Lyman Beeman made the Gold Medal presentation to Peter J. Massey, general manager of the Bryant division of St. Regis Paper Co.

GEORGE J. PECARO, new General Manager of Pioneer Division, The Flintkote Co., Los Angeles. He succeeds L. M. Simpson, who went into private business. Six years out of Iowa State College, young Mr. Pecaro supervised construction of, and managed, a new board plant in Mobile, Ala. Later he designed and managed the Flintkote board plant at Meridian, Miss. He rose to Manufacturing Manager in central Flintkote offices in Rutherford, N. J., traveling to Chicago; Little Ferry, N. J.; Meridian; Thetford Mines, Canada, and Los Angeles plants.

Joint TAPPI-Supts. Meet May Be Held in South

Although still very much in the talk stage, it seems probable that the Fall meeting of the southeastern division of the Superintendents Association will take place at Asheville, N. C., and that it will be a joint meeting with TAPPI members of that region. If the latter happens, it will probably mean that TAPPI will thereupon have a new regional division, PULP & PAPER INDUSTRY was told by reliable sources recently in Asheville. Headquarters for such a meeting would probably be the swank and commodious Grove Park Inn.

K. A. FORREST, whose appointment as Technical Consultant of The Mead Corp., Chillicothe, Ohio, was announced in the February issue of PULP & PAPER INDUSTRY. Mr. Forrest was formerly on the staff of The Northwest Paper Co., Cloquet, Minn.

Calco Chemical Official Wins High Honor

Dr. M. L. Crossley, director of research, Calco Chemical Division, of the American Cyanamid Co., has been unanimously selected to receive the 1947 gold medal of the American Institute of Chemistry. The award is made in recognition of Dr. Crossley's scientific work and leadership in research leading to discoveries in the fields of dyes and pharmaceuticals and also of his activities in behalf of the profession of chemists.

Previous recipients of this honor included: Willard H. Dow, president of Dow Chemical Company; George Eastman, of Eastman Kodak Company; and James B. Conant, president of Harvard University.

Murdock's Japan Duties Extended; Critical Newsprint Situation

Activities in Japan of Dr. Harold R. Murdock, former research director for Champion Paper & Fibre Co., who is chief of the Pulp & Paper Branch of the National Resources Section of General MacArthur's advisory staff, have been given wider scope as he is now serving in the Economic and Scientific Section of SCAP.

Dr. Murdock, who has been doing considerable traveling in Japan, says he has experienced about six earthquakes in four months in Japan up to late January. "The big quake," he wrote, "came at 4 a.m. and shook us vigorously, swaying beds and rolling around chairs and tables. Our well-constructed concrete steel home creaked and swayed and then it seemed like somebody was shaking the entire earth like a bulldog shakes a stick."

The newsprint situation in Japan this winter is very serious, Dr. Murdock reports.

Lack of coal, partly due to recent strikes in Japan, and also to general labor shortages, has made the newsprint outlook most critical. As newsprint is used in Japan for general printing purposes, too, this is an even more serious situation than it might be elsewhere.

Two Hokkaido mills produce the bulk of Japanese newsprint — they were scheduled to produce about 9,000 tons a month or a total of 9,850 tons. At the height of the strike emergency the mill operators sent their own workers into the pits to help mine the coal. They also temporarily made use of the coal allotted for consumption by mill employes in order to keep the mill in operation.

Mr. Murdock pointed out that many Hokkaido miners are farmers who have been loath to leave their fields to go to the pits until the late harvest was over. The mill is also dependent on farm labor for logging operations and for the actual production of newsprint.

LOOKING INTO "CRYSTAL BALL" AT BIG MONTREAL CONVENTION

Tide of activity in Canada's pulp and paper industry is still rising, with no sign of recession.

A mid-winter swing through eastern Canada by an editor of PULP AND PAPER INDUSTRY revealed abundant evidence that operators of Canada's biggest manufacturing industry, busier and producing more than ever before, are still thinking —and acting—in terms of expansion.

The mood was strikingly reflected at the annual meeting of the Canadian Pulp and Paper Association in Montreal Jan. 29, 30 and 31, attended by 1,000 delegates from coast to coast representing every branch of the industry and every important producing region.

Optimism was expressed by Robert M. Fowler, president of the association when, speaking at the annual luncheon meeting in the Mount Royal Hotel before a vast gathering of pulp mill executives and operating officials, technical men and woodlands managers, he answered the questions he himself had raised—"Where are we heading? What does the future hold?"

After reviewing the accomplishments of the Canadian industry, whose production values $400,000,000 a year with exports of $300,000,000, Mr. Fowler said there might be those who feared that there might have been over-expansion, and that the immediate future might present the same hazards and difficulties which beset the mills in the early 20's.

"I seem to detect throughout the industry a feeling of insecurity about the present well-being of the pulp and paper business," said Mr. Fowler, "a rather widespread belief that we have only a short period of sunshine in which to make hay. Such an attitude may have the advantage that it prevents a business man from becoming over-confident, but it has the greater danger that he is likely to make decisions for short-range advantage rather than for long-range good. I do not believe that a decline in the present fortunes of this industry is inevitable. I do not believe that history does, in fact, repeat itself. Events are determined by the combination of circumstances existing at the moment, and since circumstances vary from generation to generation it is illusive to suppose that any past pattern of history is likely to repeat itself."

S. L. deCARTERET, of Canadian International Paper Co., who was elected new Chairman of Executive Board of Canadian Pulp & Paper Association.

F. L. MITCHELL, O.B.E., Deputy Coordinator of pulp and paper administrations of the Wartime Prices and Trade Board, who has been appointed General Manager of the Canadian Pulp and Paper Association. For many years he has been engaged in various branches of the industry. Mr. Mitchell succeeds A. E. Cadman, who has retired after 25 years with the association, but will continue to serve as consultant.

There was solid basis for Mr. Fowler's sentiment when it was considered that practically every branch of the industry is planning substantial increases in output this year and plant improvements aiming at greater efficiency. This year Canada will produce 200,000 tons more newsprint than in 1946, 25,000 tons for fine papers, book papers and printing papers, over 50,000 tons more paperboard, 70,000 tons mechanical pulp, and over 30,000 tons more chemical pulp, apart from dissolving and soda pulps.

Mr. Fowler also touched on political ideas. He said: "I feel that in our thinking and our actions, in common with other Canadian business men, we should give close attention to the nature of our institutions and our way of life. I feel that this greatest single segment of the Canadian economy should be in the forefront in thinking about and making work the system of economic life in which we believe. In common with other business men, I suspect we accept too thoughtlessly what one might call the happy phrases of the day—'free enterprise,' 'democracy,' 'the Canadian (or American) way of life'."

"How much freedom have we lost in the past six or seven years? How well are we fitted to regain it? The recovery of freedom and enterprise —calls for much more hard, constructive thinking than it has yet received. We do not realize how much our freedom was curtailed during the war, and how much of it still is withheld. It would be better withheld unless the recipient is prepared to exercise it with wisdom, moderation, and a sense of responsibility.

"That, I suggest, is the central problem of the year ahead. I hope that this industry can show itself ready to receive a reconveyance of freedom. When Government controls are removed, I hope that individually the members of this industry can exhibit wise moderation and responsibile merchandising policies —that they can achieve in freedom the legitimate objectives that government controls have sought to achieve."

New Officers

The new chairman of the association's executive board is S. L. deCarteret, vice-president and general manager, Canadian International Paper Co. Vice chairmen are Aubrey Crabtree, president, Fraser Companies, the retiring chairman,

At CANADIAN SESSIONS (left to right):
1. Robert M. Fowler, President, CPPA, who bespoke optimistic outlook for expanding mills; R. L. Weldon, President, Bathurst Paper Co., and Frank L. Mitchell, of Pulp & Paper Institute in Quebec.

2. C. C. Atkinson, Fraser Companies; J. A. Matthews, Abitibi Power & Paper Co.; A. A. St. Aubin, Mgr., Woods Mechanization Section; W. A. E. Pepler, Woodpulp Section, CPPA.

3. A. A. Schmon, President, Ontario Paper Co.; M. R. Kane, Vice President, Price Brothers; and Harold Fisk, Powell River Co. and Pacific Mills representative.

4. Aubrey Crabtree, President, Fraser Companies; Egon Geslinger, who told of United Nations plan to survey forests (see story), and R. G. MacFarlane, Fraser Companies.

5. Gordon Godwin, Quebec North Shore Paper Co.; Verne E. Johnson, Vice President, Canadian International Paper Co., and Dr. Otto Maass, Pulp & Paper Research Institute.

6. A. L. Ross, Consolidated Paper Co.; Ted Kirby, Price & Pierce; W. H. Birchard, Fraser Companies, and Joseph Edwards, Provincial Paper Co.

and R. L. Weldon, president, Bathurst Power & Paper Co. Honorary vice chairmen are C. R. Whitehead, vice president, Consolidated Paper Corp., and Hugh M. Lewis, executive vice president and managing director, Sorg Pulp Co., who is chairman of the British Columbia branch.

Members of the executive are: D. W. Ambridge, president, Abitibi; L. J. Belnap, president, Consolidated; George W. Brown, president, Gair Co.; Wentworth Brown, vice president, Brown Corp.; George L. Carruthers, assistant general manager, Interlake Tissue Mills.; Paul E. Cooper, president, Pacific Mills; Harold S. Foley, president, Powell River Co.; Percy M. Fox, vice president and general manager, Lake St. John Power & Paper Co.; G. Gordon Gale, president, the E. B. Eddy Co.; R. A. Hayward, president, KVP Co.; Colonel C. L. H. Jones, president, Price Bros.; R. P. Kernan, president, Donnacona Paper Co.; E. M. Little, president, Anglo-Canadian; A. Barnet Maclaren, president, The James Maclaren Co.; J. R. S. McLernon, director, Dryden Paper Co.; F. G. Robinson, president, Riordan Sales; J. Pierre Rolland, vice president, Rolland Paper Co.; Hon. W. Earl Rowe, president Great Lakes Paper Co.; C. H. Sage, president, Spruce Falls Power & Paper Co.; A. A. Schmon, president, Ontario Paper Co.; E. Howard Smith, president, Howard Smith Paper Mills; John Stevens, Jr., president, Marathon Paper Mills of Canada.

Presentations were made at the annual luncheon to the retiring gen-

AT CANADIAN SESSIONS (left to right):

1. Prentice Bloedel, President, Bloedel, Stewart & Welch, Ltd., builders of new sulfate mill on Pacific Coast; Paul Kellogg, Newsprint Association, and J. P. Rolland, Rolland Paper Co.

2. Paul E. Cooper, President, Pacific Mills; R. P. Kernan, President, Donnacona Paper Co., and C. Gordon Gale, President, E. B. Eddy Co.

3. Hon. W. Earl Rowe, President, Great Lakes Paper Co.; C. H. Sage, President, Spruce Falls Power & Paper Co., and C. R. Whitehead, Vice President, Consolidated Paper Corp.

4. Elliott M. Little, President, Anglo-Canadian Pulp & Paper Mills; G. L. Carruthers, Interlake Tissue Mills, and J. A. Michaud, of Grand Mere, winner of award for paper on logging mechanization.

eral manager, A. E. Cadman, by C. R. Whitehead, dean of the industry, and to Aubrey Crabtree, retiring chairman.

World Wood Survey

A series of regional conferences to determine the requirements and productive capacity of the forests and mills in Europe, Latin America and the Far East, as well as on this continent and throughout the world, was announced at the Canadian Pulp and Paper Association in Montreal by Dr. Egon Glesinger, chief of the forest branch of the Food and Agricultural Organization of UN.

Dr. Glesinger stated that the first of the conferences would be held in Marienbad, Czecho Slovakia, commencing April 28. Subsequently, similar meetings will be held in Latin America and the Orient. Soviet Russia will be invited to the European conference, Dr. Glesinger mentioned.

In spite of the enormous increase in production of pulp and paper and other forest products, Dr. Glesinger declared that the world was still a laggard in making full use of the world's forest resources. If all the world forests were fully utilized, he said, at the rate of one ton per acre, the resultant output would be 8,000 million tons which, if utilized only 70 to 80 per cent would double the present volume production of all other industries combined.

Success in forest utilization, said Dr. Glesinger, could be tested by the ratio of lumber and pulp production. Sweden's ratio of 1.4 tons of pulp to every 1,000 feet of lumber produced was good because one third of all pulp was produced from sawmill waste. Canada's ratio of 5 billion feet of lumber and 5 billion tons of pulp was statistically ideal, but the world as a whole with a ratio of 1-3 for lumber and pulp had a long way to go. The possibilities of full utilization, he said, were startling.

Dr. Glesinger's address was one of the highlights of the woodlands session of the association. New chairman of the woodlands council is Wallace Delahey, newly appointed executive vice president of Great Lakes Paper Co. Councillors are G. Harold Fisk, representing Powell River Co. and Pacific Mills; Gordon Godwin, Quebec North Shore Paper Co.; Verne E. Johnson, Canadian International Paper Co.; C. B. Davis, Abitibi Power & Paper Co.; M. R. Cane, Price Bros.; J. A. McNally, R. G. McFarlane, Fraser Companies; and Duncan McLaren, Bathurst Paper Co.

Awards for best papers on woods technique were made to E. L. Howie, Fraser Companies; Ivar F. Fogh, Canadian International; J. A. Michaud, Consolidated Paper Corp.; Geoffrey Fitz Randolph, Brown Corp.

Wide Range of Papers Given Before Canadian Technical Section

One of the outstanding papers presented at the annual meeting of the Canadian Pulp and Paper Association, technical section, in Montreal, was that of Gordon F. Allo, control superintendent, Bathurst Power and Paper Co., on kraft brown stock refining at his company's mill.

The company started experimenting early in 1945 on a mill scale and, while the results are not regarded by Mr. Allo as final, sufficient has been done to demonstrate the efficiency of the job attempted and to indicate where improvements may be made in the future. The main aim has been to obtain fullest possible wood utilization to reduce costs and forestall depletion.

Explaining why it was decided to refine the pulp while suspended in the hot alkaline cooking liquor before washing, and before removal of knots, Mr. Allo said that in order to obtain a greater yield of pulp from the wood used, a much rawer or harder pulp would have to be cooked, and raw pulp contained many disintegrated chips and fibre bundles extremely difficult to wash free of black liquor, as well as knots. However, if by refining, the knots, chips and bundles are broken down, it becomes possible to obtain a sheet on the washers which may be more easily washed free of residual liquor with reasonably low chemical losses.

"The heat and alkali content of the pulp suspension should make it possible to refine with lower power input than would be required on washed pulp" said Mr. Allo. "Previous experience with Sutherland refiners on washed stock had shown that a considerable increase in power input was necessary if the pH of the pulp was lowered by the addition of alum. It is also probable that the heat and alkali tend to keep the fibers softer and more pliable. In addition, refining at this stage would break down the larger particles to the point where they would not be rejected by the knotters and would thus produce washable pulp. At the same time, the rubbing action of the refiner discs on fibers and fiber bundles would increase the strength and felting properties of the pulp, preparing it for final use on the paper machine."

The refining system has been operated almost continuously during the past year, with promising results. Pulp yield has increased and chemical consumption has been reduced and pulp capacity increased.

ANDREAS CHRISTENSEN (left) of Spruce Falls Power & Paper Co., who soon will take up new duties at new Kimberly-Clark sulfate mill in Canada, giving a "paper" on cooking and acid making.

G. F. ALLO (right), Bathurst Power & Paper Co., who presented a discussion of results achieved with Swenson and Sutherland equipment in kraft operation.

The general arrangement consists of four digesters, each of 3,116 cubic feet capacity, which discharge into a central blowtank which holds four cooks. In the blowtank the pulp is diluted in the area around the agitator, with black liquor from the washers. A Foxboro consistency regulator operating a Stabilflo valve controls the consistency to an average of 3.25 per cent. The temperature of the stock leaving the blowtank is about 175 degrees F. From the bottom cone of the blowtank the regulated stock passes through a magnetic separator, a centrifugal pump and a Miami No. 6 jordan to the Sutherland refiners. The three Sutherland refiners operate in parallel, receiving their stock supply from a main header pipe which has a controlled by-pass returning to the blowtank. The refined stock from the Sutherland drops by gravity to a small refined stock chest equipped with an agitator. From the refined stock chest the pulp is pumped to two Nyman--Swenson washers operating in parallel. The washed stock from the vacuum washers is broken up and diluted to 3.50 per cent consistency in a repulper, then drops by gravity to a storage chest.

The pulp from the storage chest is pumped to the knotter head box where it is diluted and fed by gravity to six Sherbrooke knotter screens. The accepted stock is then fed by gravity to a Sherbrooke vacuum thickener and drops from there to a storage chest. From here the stock is regulated to 3.25 per cent consistency and pumped to a Miami No. 6, jordan, then to three Sutherland refiners operating in parallel, from which point the stock is then continuously sized and goes to the machine chest where it is ready for use in the production of kraft liner board.

The four digesters have a daily capacity of 240 tons.

The Sutherland refiner was chosen as the type best suited for the refining process, according to Mr. Allo, two of them having been installed as early as 1938 for processing washed pulp for use in making liner board. The company profited from the experience of the Brown Company mill at Monroe, La., where experiments had been made with brown stock refining with Sutherland units. It had been found that the Sutherland refiners being precision instruments permit close control of the operation, require little power, de-fibre with little cutting. In addition, the nickel-chromium steel discs can be operated for long periods without recutting.

The Nyman-Swenson vacuum washers each take about 125 tons per 24 hours. They are equipped with cylinders 9 feet in diameter with a 12-foot face. The effect of the refining system in breaking up knots and chips is visibly demonstrated when refined stock is put over the washers. The knots and chips, which were quite plentiful on unrefined stock, are no longer visible, and a smooth, clean sheet results.

The six Sherbrooke knotters have screens with 3/8-inch perforations. When operating on refined stock the amount of stock rejected is very small, according to Mr. Allo.

In analyzing the economic results of this system, Mr. Allo pointed out that with wood at $20 per unit, an increase in yield from 50% to 60% would mean a saving of about $4 per ton of pulp, and with a production of 250 tons per day this would mean an annual saving of about $300,000. So far the highest yield obtained over a monthly period has been estimated at 58% bone dry pulp from bone dry wood, representing an increase of about 11.5% over the period previous to

the operation of the brown stock refiners.

Gerard Larocque of the New York Daily News, emphasized the importance of developing a more level sheet of newsprint through better formation. Better running quality would also be in demand due to replacement of older presses by higher speed machines with color. The development of a convenient, rapid test for measuring surface absorbency would also seem desirable.

G. N. Blair Burch, Allan C. Shaw and R. V. V. Nicholls, presented a paper on Canadian tall oils, pointing out that the industry possessed in this oil a valuable marketable commodity—"a storehouse of valuable organic chemicals"—now often being merely burned as fuel.

Cooking and Acid-Making

Andreas Christensen, superintendent of the sulfite mill, Spruce Falls Power & Paper Co., Kapuskasing, who is scheduled to become associated with the new Long Lac development of Kimberley-Clark, gave some of his observations on cooking and acid making problems resulting from increased chip packing.

Use of mechanical equipment for the distribution of chips in the digester during the period of filling has been responsible, said Mr Christensen, for a substantial increase in the amount of pulp produced per cook. To accomplish this gain, which was equivalent to increasing the amount of pulp produced per cubic foot of digester volume from the old standard of 4.7 pounds to the present value of 6.4 pounds of air dry pulp it was necessary to add a considerable amount of new equipment and make certain changes in operating procedure.

Introduction of forced circulation of the digesters and providing them with means for external heating with both temperature and pressure automatically controlled made it possible to replace the cooking operation on a fixed time cycle basis. Addition of auxiliaries in the acid plant which insures uniform concentration of cooking acid regardless of seasonal temperature variations as well as recovery system changes which reduce backpressure on the digesters to a minimum during the blowdown period and permit maximum recovery of SO_2 have greatly added to the efficiency of the operation.

Means have also been provided to insure the digesters blow clean and a comprehensive program of instrumentation has been carried out in connection with the various phases of the operation. Increased production also by reducing cooking time as well as savings in chemicals and steam by increasing digester output was also discussed.

Mr. Christensen estimated that digester yield per unit volume may be increased more than 35% by the use of chip distributors.

FOR PICTURE of the new Chairman of Canadian Technical Section—elected at Montreal meeting of CPPA—see page 34.

The new Chairman is R. J. Askin, Manager of Mill Operations for Abitibi Power & Paper Co., Toronto.

Pacific Coast Trends

The Pacific Coast is the most desirable location for sulfite pulp mills, according to L. C. Kelley, general superintendent, B. C. Pulp and Paper Co., who outlined his views before the technical section.

"One could cite many reasons for such a choice," said Mr. Kelley. "These include such things as climate, lower operating steam costs due to lack of heating loads; no capital tied up in a woodpile to last out the winter months; lower wood handling costs due to lack of continuous building up and taking down of the woodpile; wood species that have a longer fibre length and a higher alpha than eastern woods, that hence result in a better pulp."

Speaking of the trend towards the use of hydraulic barkers, Mr. Kelley recommended such units for the east over drum or Thorne barkers, partly because with hydraulic barking the removed bark cannot be pounded into the ends or sides of the bolts, but mainly because for the first barking months each year drum barkers and Thorne barkers only do a partial job, meaning that later on in the process rossers, hand barkers, etc. must be employed to remove the remaining bark.

"On the west coast," said Mr. Kelley, "hydraulic barking is a must because of the enormous savings in manpower and wood possible over the old-type breakdown plant with its head rig, power barkers, splitters, planer heads, etc. Surveys have shown that a saving of 200 men per day and 25 per cent of the wood used per ton can be effected by using hydraulic barking."

He also suggested whole log chipping after hydraulic barking, followed by chip screening and adequate chip storage—at least enough for two days' cooks to take care of the 40-hour week. He thought that the eastern mills would be well advised to adopt the western practice of chip storage bins or silos at ground level, which resulted in less expensive digester house construction, eliminates the drip on the cooking floor and allows uniform, controlled filling of digesters.

W. P. LEI, Chinese architect and consulting engineer, who recently designed two small-scale paper mills built and operated 200 miles west of Chunking. He told PULP & PAPER INDUSTRY the mills were "very small" because of limited raw materials and lack of machinery. Equipment was made in America, sent by boat to India and flown to China. Pine is the raw material for a white paper, comparable in color to American newsprint. He is visiting American mills.

V. Oleskevich, chief chemist for Abitibi, Smooth Rock division, spoke on the effect of secondary factors on sulfite pulp bleaching, and W. L. Eliason, Ontario Paper Co., gave a paper on motor application in the industry. The measurement of printing smoothness was delt with by S. M. Chapman, Pulp and Paper Institute, and John E. Tasman and Alfred J. Corey, both of the Fraser Companies, who spoke on polymolecularity of cellulose.

A. E. Montgomery, vice-president of the J. O. Ross Engineering Co., presented a paper on the drying of paperboard, and Scandinavian methods of paperboard manufacturing were described by Carl J. Bergendahl, superintendent of the Inlands Aktiebolag Lilla Edet, Sweden.

Price Mill Improvements

The Riverbend mill of Price Brothers & Co., has been the scene of many improvements and extensions of sulfite facilities, and these were told about by H. J. Barratt, plant engineer, and H. H. Sears, assistant sulfite superintendent. The

MODERATOR

Pacific Coast TAPPI will hold a round table "no-holds-barred" discussion on "Instrumentation in the Pulp & Paper Industry at its next meeting in Bellingham, Wash., Tues., March 11, and the Moderator will be H. T. PETERSON (above), Instrument Man of the Pulp Division, Weyerhaeuser Timber Co. Great strides have been made in instrumentation in recent years and this should be an outstanding meeting.
The round table will start at 2:30 p.m. in Hotel Leopold and dinner will be held there at 6:30 p.m. Eric Ericsson, Tech. Dir., Puget Sound Pulp & Timber Co., is making arrangements.

Riverbend program has included alterations to the acid plant and digester buildings, as well as the erection of a complete new accumulator, knotter and screen room buildings. The system has been designed for ultimate production of 250 tons A.D. sulfite per day. Some of the equipment installed embraces two 4 x 15 Waterous rotary sulphur burners, lined with Stebbins cupola brick; complete Chemipulp hot acid recovery system; forced circulating systems; Northern Foundry circulating pumps; Foxboro steam flow recorder; Bristol temperature recorder and vane pressure controller, and Westinghouse indicating ammeter for the circulating pump.

Rejects from the rotary and flat screens are weired and pumped to two Waterous 42" Quillers, the accepted stock going to the news machines. Rejects are re-screened on two lines of 16 plate Sherbrooke flat screens. Two all-welded Horton spherical accumulators have been erected, lined with Stebbins double course lining.

The Carlsson printability test for newsprint was reviewed by John H. Bardsley, St. Lawrence Paper Mills Co., and Lucien J. Morin, Consolidated Paper Corp., both of Three Rivers. Paper moisture control was the theme of a paper by E. L. Neal, assistant control superintendent, Anglo-Canadian Pulp and Paper Mills, while N. S. Grant, O. A. Mason and H. F. Donnelly dealt with a method of evaluation of the unbeaten strength of unbleached chemical wood pulp. Slime control at Anglo-Canadian was a subject covered by J. W. Wing, and Dr. W. Boyd Campbell spoke on physics of water removal. A. G. Durgin, Brompton Pulp & Paper Co., summarized the uses of kraft pulp.

G. Goumeniouk, of Powell River Co., analyzed the hydraulic method of barking, and Dr. J. A. Van Den Akker of Appleton, Wis., described the instrumentality program of the Institute of Paper Chemistry.

Others who participated in technical section discussions included: W. Eliason, Ontario Paper Co.; D. G. P. Sanderson, Donnacona Paper Co.; W. H. Birchard, Fraser Companies; Alex Johnson, Provincial Paper Co.; Dr. J. Edwards, Price Bros.; A. J. Philip, Canada Paper Co.; John S. Hart, Pulp and Paper Research Institute; G. W. Hamblet, Hamblet Machine Co.; W. E. Stobo and Dr. J. K. Russell, Anglo-Canadian, and John H. Maude, Dominion Engineering Co.; J. C. Benny; D. B. Foss, Consolidated Paper Co.; H. R. Davidson, Great Lakes Paper Co.; W. W. Holland, Quebec North Shore Paper Co. Among the panel chairmen at the technical sessions were R. J. Askin, A. J. Philip, C. D. Jentz, W. J. Calnan, F. J. Griffin.

The new chairman of the technical section is R. J. Askin, manager of mills, Abitibi Power & Paper Co., Toronto. New councillors elected for three year terms are John Buss, Provincial Paper Co., Toronto; Gordon A. Franklin, technical director, E. B. Eddy Co., Hull, Que. Two year councillor is Charles E. Turner, production manager, Building Products, Ltd., Montreal.

Technical section awards for the year were won by F. B. Bjornlund of Howard Smith Paper Mills; Arne Hellstrom of Paper Machinery Ltd.; Dr. J. N. Swartz, Howard Smith Paper Mills, and Dr. Allen Hill.

CHANDLER OF THE BRISTOL COMPANY COMING WEST FOR ROUND TABLE

J. B. Chandler, pulp and paper mill engineer for The Bristol Company, manufacturers of control and recording instruments in Waterbury, Conn., is making a trip across the continent in early March for the particular purpose of assisting in the Pacific Coast TAPPI Round Table discussion on "Instrumentation" which will feature a meeting at the Hotel Leopold, Bellingham, Wash., on March 11.

Just as this issue went to press word was received that J. G. Ziegler of Taylor Instrument Companies and Gene Klotz, for Fischer & Porter, will participate.

Mr. Chandler will discuss "Measurement and Control of pH."

He will be met when he reaches the Pacific Coast by Arthur Dammann, sales engineer in the Pacific Northwest for The Bristol Company, with office at 6624 White Building, Seattle.

Canadian Pulp And Paper Prices Up

Domestic price increases on Canadian wood pulp ranging from $1 to $12 a ton and on paper and board ranging from $7.50 to $30 per ton have been announced by Canada's Prices and Trade Board.

In the case of wood pulp the increase will mean higher earning power for the Canadian industry amounting to possibly $1,500,000 a year, based on 250,000 tons being sold on the Canadian market.

Types of pulp which benefited under the higher ceilings are: Bleached sulfite, by $8 a ton; unbleached sulfite, $6; unbleached sulfate, $12; soda pulp, $6; groundwood pulp, $4; chemical pulp screenings, $2; mechanical pulp screenings, $1. Dissolving pulps were removed from price control a few months ago.

In paper and board here is how Canadian mills were affected: Sulfite bond papers, up $15 a ton; rag papers, up $20 to $30; kraft wrapping papers, $15 to $17; liner board, $10; boxboard, about $7.50.

The principal Canadian mills benefiting from the price increase are Howard Smith on domestic sales of bond papers; Rolland on sulfite bond and rag grades of paper; Provincial on sulfite bond papers; Brompton, Consolidated and Dryden on kraft and wrapping papers; Bathurst on linerboard and boxboard; Donnacona on boxboard.

Fine paper producers also gained from the second price increase authorized since controls were instituted in Canada in 1941, last month. Prices on sulfite bond papers jumped $15 a ton and on rag grades $15 to $20. This brings the selling price in Canada on book, writing and so-called specialty papers to around $175 a ton.

Record Production

U. S. production of paper, paperboard and building board reached the all-time record total of 19,157,208 tons in 1946, according to a preliminary report by the Bureau of Census. This is more than 10% greater than in 1945 and 7% greater than 1941, the previous high.

The output of paper at 9,768,080 tons, compared with 8,457,229 tons in 1945, advanced more than paperboard which at 8,183,173 tons was only 392,070 tons greater in 1946 than in 1945. Building board rose to 1,205,955 tons from the 1945 level of 1,122,633 tons.

FOREMEN'S RELATIONS WITH MANAGEMENT AND LABOR

By Gordon R. Singletary

Plant Mgr., Brunswick Pulp & Paper Co., Brunswick, Ga. This paper, given at last fall's Jacksonville, Fla., meeting of Southern and Southeastern Superintendents, was summarized briefly in our resume of principal papers given at that convention in our Jan. 1947 issue. Mr. Singletary's photograph was published on Page 24 of that issue.

I have been asked to talk on foremen relations with management and labor. For my talk, I would like to use a foreman we are all familiar with—our tour foreman.

We think that our foremen relations with both management and labor have been badly affected in the past few years. Why were foremen relations so affected? We are of the opinion that, first, management in some cases at least has not paid enough attention to a man's qualifications when selecting a foreman, especially if he has been selected from the ranks. Second, we do not think management has given foremen the proper training, nor have they been well informed on company policies, handling of personnel, and safety or the men in their departments. Third, in most of our plants hourly employees have organized and have their standing committees to represent them to management, which has made the foreman feel left out of things.

We realize that most mills have their grievance procedures set up so that an aggrieved employee first goes to his immediate foreman, but I am afraid in too many cases the foreman does not receive enough information from management to enable him to settle the grievance satisfactorily and then, of course, the employee takes his grievance to the standing committee, who takes it to management and a satisfactory decision is reached. You can readily see how this must make the foreman feel—he becomes the man in the middle. He loses prestige with the men and his relations are badly affected. Too, not having been given the necessary information by management to enable him to handle his own men, he doesn't feel he is a part of management. Therefore, his relations with management are badly affected.

What can be done to improve the foremen's relations with management and labor? First, pick the right men for foremen. This does not necessarily mean the best operators. Pick men on their proven ability as leaders. If a man has been with you long enough to be considered for the job of foreman, you should know whether or not he can: First, lead people; second, if he is the type of man you would want to lead the crew, is he a man you could confide in and give all the facts about the business. This may sound fantastic, but if you expect a foreman to do a real job for you, he must know all the facts.

Second, train him as a foreman. We have many cases where a foreman is picked for a given job and the only training he receives is the routine of the job by working with some other foreman of that department. We do not think this is sufficient training. We think he should spend some time in the accounting department, familiarizing himself with costs and cost statements. We think he should spend some time in the personnel department, familiarizing himself with company policies, group insurance plans, etc.; in the technical department on quality, controls, losses of various kinds. We also feel he should spend some time in stores to acquaint himself with the maintenance materials and unit prices. He should know what it means in actual dollars and cents when these materials are used. And finally, of course, he should spend a time with the manager, himself, so he can acquire the broad objectives, the philosophy and the point of view of the manager to whom he is responsible.

Third, after having done these things you have, in our opinion, started the foreman off right, but this isn't enough if you hope to retain good relations between the foreman and management and labor.

We believe that management has a direct obligation to the foreman at all times in keeping him well informed. He should be so well informed on all phases of the business that no question could arise from the men under his supervision that he could not answer. To this end he should be furnished with period reports as to the status of the business.

Management, in our opinion, should hold regular meetings with foremen to keep them up-to-date on changes of any kind that management might anticipate making. Costs are something that we think should be broken down by an accountant at these meetings. This gives the foreman a chance to understand his cost statement better and also gives him a chance to question anything he thinks is wrong. This, in our opinion, puts the foreman in a better position to control costs in his department. Other things we feel are of importance at a meeting of this kind are: Safety, housekeeping, discussion on grievances that you have had and explain how the foreman fits into these.

The foreman should use the union contract more than anyone else in the organization. Therefore, his need for a thorough understanding of the working agreement is very important. This being true, he certainly should be given a chance to express his thoughts on the type contract management agrees on. We realize it isn't possible to have all foremen in on these negotiations, but there is no reason that I can see for not having group meetings with our foremen each morning during the negotiations to go over union requests, explaining our position on these requests--why we probably should give on some and not on others. In doing this, you will find that the foreman can and will add a lot of good constructive thinking to the cause. By having these meetings with foremen, we give them a chance to understand better the contract they will have to follow in their dealings with their men, but most important of all, you make them feel that they have helped make the contract and, therefore, are part of management.

Do not by-pass the foreman. To by-pass a foreman will, in our opinion, break down his prestige with his men more than anything else. If we by-pass a foreman, it is to be expected that the men in his department will, in turn, by-pass him. If this happens, the foreman's relations with his men are badly affected.

In the event it becomes necessary to promote, demote or transfer an employee, such change should be discussed with his foreman before any action is taken,and the decisions should be announced by the foreman. This is the best way I know of to build a foreman in the eyes of his men.

To sum up what I have said, as I see it to improve foremen relations with management and labor we, as

management, have only one thing to do--make foremen part of management. To make foremen a part of management we should, first, do a good job of selecting the foremen; second, train them as foremen. After they are trained, keep them supplied with information on all phases of the business.

This is nothing new--it is being done in more than one plant. We at Brunswick have been following this plan for several years and believe it to be the only way by which you can expect to have good, efficient foremen.

I think that if the plan I have outlined in this talk is followed, improved relations will be assured between foremen and management and labor.

Appleton Machine Head Discusses Trends

During the current trend of paper mills to high speed machine coating, and development of quick-drying magazine papers, the development of super-calenders has had to keep pace, Henry P. Madsen, president of Appleton Machine Co., Appleton, Wis., told PULP & PAPER INDUSTRY. The amazing growth in circulations of slick paper magazines is, of course, the reason for this speed-up.

Where the old super-calenders operated at about 600 feet per minute, the new ones are able to operate at up to 1800 feet per minute, said Mr. Madsen. In order to achieve this speed, bearings are an important factor and also a shift from castiron to welded steel frames.

Virtually all book mills in the U. S. are putting in machine coating and high-speed supercalendering, the latter equipment largely furnished by Appleton Machine Co.

William A. Zonner, who became traveling sales engineer for the Appleton company about a year ago, made his first trip to Pacific Coast mills in January after an earlier journey to Texas. Previously he had toured mills from Maine to Georgia, working out of the office of Castle & Overton, Inc., 630 5th Ave., New York, representatives of Appleton Machine on the eastern seaboard. Mr. Madsen accompanied Mr. Zonner on the western trip.

Mr. Zonner was department superintendent for 11 years with Consolidated Water Power & Paper Co., Wisconsin Rapids, and previously was with The Mead Corp. for 11 years. Mr. and Mrs. Zonner reside at 842 West Prospect Ave., Appleton, Wis.

Michigan Mills Give Wage Increases

Mid-contract negotiations with the AFL PPW resulted in a 7 cent per hour increase for employes of Detroit Sulphite Pulp & Paper Co., bringing base rates to $1.04 for men and 91 cents for women plus a 5 cent differential for night shifts. This mill is on a 48-hour week.

Similar negotiations at the Port Huron Sulphite and Paper Co., Port Huron, Mich., which is farther removed from the high living cost mill areas in the Midwest brought an 8 cent increase and men's base of 95 cents.

Hayes Succeeds Dickson At Jacksonville Mill

W. C. Hayes, for the past seven months paper mill superintendent for Bedford Pulp & Paper Company, Big Island, Va., a subsidiary of National Container, has been appointed paper mill superintendent of the Jacksonville, Florida, plant of National Container Corporation.

Sidney Brown, Jr., with National since 1938 as a machine tender and later assistant superintendent at Jacksonville, takes Mr. Hayes' place at Big Island.

Mr. Hayes was assistant paper mill superintendent at Jacksonville before his tour of duty at Big Island.

AT PASC meeting: AL STRANG, of California-Oregon Paper Mills, who was Program Chairman for Los Angeles group.

Papermakers Hold Meeting in Los Angeles

Appointment of three new committee members, two of them chairmen, was proclaimed by General Chairman John Van Ounsem at the Jan. 17 meeting of Papermakers and Associates of Southern California, at the Rosslyn Hotel, Los Angeles.

Bruce Brown, Jr., of Fibreboard Products Inc., winner of the 1946 Cunningham Award for technical papers, has been named chairman of the educational committee. Glen Phillips of Pioneer-Flintkote was appointed chairman of the membership committee, and Robert Baum of Fernstrom Paper Mills, was named to that committee.

Al Strang of California-Oregon Paper Mills was program chairman. A color film, "Yellow Magic," produced by Freeport Sulphur Co., was shown, depicting the production and refining of this chemical material in the Gulf region. A talk on petroleum products in papermaking was made by Ken Hewitt of General Petroleum Corp.

He was with the Albemarle-Chesapeake Corp. from 1931 to 1938 when he joined National Container as a machine tender.

Norman Dickson, who has been paper mill superintendent at Jacksonville since 1940, resigned to devote his entire time to the antique business at 729 Royal Street, New Orleans.

Port Alberni Mill To Operate in 1947

Depending in part on the speed with which the transmission lines are laid between Port Alberni, B. C., and Campbell River, the source of power, the kraft pulp mill of Bloedel, Stewart & Welch, Ltd., is expected to be in operation during spring or early summer of 1947.

Vice Presidents Elected By Appleton Wire Works

George J. Maye, of Appleton, Wis., who has long been traveling the South and Midwest; and Smith McLandress, of Glens Falls, N. Y., Eastern representative, have been elected vice presidents of Appleton Wire Works of Appleton, Wis.

William E. Buchanan was re-elected president, treasurer and general manager. One other vice president is R. H. Purdy, also secretary.

Ben E. Natwick, of Camas, Wash., younger member of the Appleton Wire "family" who travels the Pacific Coast, and S. W. Murphy, of Appleton, who assists Mr. Maye in his territory, are other representatives of this company.

Lewis Elected to Head CPPA Branch in West

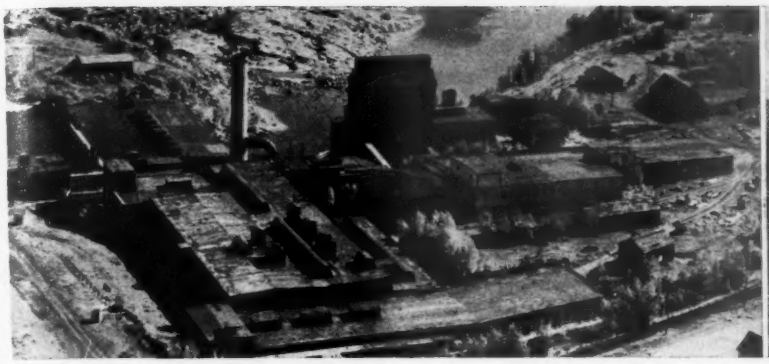
Hugh M. Lewis, vice president and general manager of Sorg Pulp Co., Vancouver, was elected chairman of the British Columbia branch of the Canadian Pulp and Paper Association at its recent meeting in Vancouver. B. R. Cancell, vice president of Powell River Co., is vice chairman.

The executive committee: Paul E. Cooper and J. A. Young, Pacific Mills, Ltd.; Harold S. Foley, Powell River Co.; Lawrence Killam, B. C. Pulp & Paper Co.; Elmer Herb, Westminster Paper Co.; Logan Mayhew, Sidney Roofing & Paper Co.

Leander Manley, Vancouver advertising man, has been appointed secretary of the British Columbia branch.

Paul Kellogg Resigns

Paul Kellogg, general manager of the Newsprint Association of Canada for the past two years, has resigned. Mr. Kellogg undertook management duties as a war measure. He is president of Stevenson and Kellogg Ltd., management engineers, statistical agent for the Association.



At left—Sturgeon Falls, Ont., mill of Abitibi Power & Paper Co., on Lake Nippissing, about 100 miles east of the new KVP mill at Espanola. This mill, long idle, is to resume production in late 1947. But instead of its old product—newsprint—it will make a special corrugated paper. A big 154-inch Pusey & Jones machine is being modernized.

At right—Construction of new caustic diffusion stage in bleach plant at Abitibi's Smooth Rock Falls sulfite mill in Ontario county.

Abitibi's President Outlines Company's Plans for Expansion in Canadian Mills

Abitibi Power & Paper Co., Toronto, is proceeding with a vigorous program of expansion now that it has shaken off the restrictions of receivership which have hampered progress since 1932.

D. W. Ambridge, new president and general manager of Abitibi, discussed his plans with a representative of PULP & PAPER INDUSTRY at his Toronto head office recently, and stated that the company is currently engaged in a $2,500,000 program at its Thunder Bay Paper Co. mill at the head of the Lakes, and at Smooth Rock Falls.

Rehabilitation of the Sturgeon Falls mill at Sturgeon Falls, Ont., and resumption of full scale production there are also projected.

At Smooth Rock Falls in Ontario an alkaline diffusion stage is being installed in the bleach plant of the bleached sulfite mill at a cost of $300,000. All equipment will be of Canadian manufacture and the process has been designed and engineered locally to fit in with the existing facilities.

Construction at Smooth Rock Falls is already well under way, and it is expected that the unit will be in operation some time during the spring of 1947. The installation will give the mill a four-stage bleaching system of the most modern design, consisting of direct chlorination, alkaline diffusion and two stages of high density hypochlorite bleaching. It will enable the plant to produce the maximum in brightness, cleanliness and strength for the bleached sulfite market.

Mill Starts Up in 1947

Referring to the Sturgeon Falls program, Mr. Ambridge tells PULP & PAPER INDUSTRY that this mill, which was formerly equipped to produce groundwood, sulfite and newsprint, is being rehabilitated to produce a special grade of corrugated paper using the semi-chemical bleaching process. The cost of this work will be approximately $1,500,000, and it is expected that the mill will be in operation late in 1947.

Although the semi-chemical process is not a new one, this will be one of the first large scale operations of its kind in Canada. One of the notable features is that all species of wood found on the company's limits will be utilized with an absolute minimum of waste.

Five Globe rotary digesters will be installed, along with six Bauer Bros. Co. (Springfield, Ohio) refiners, jordans and other auxiliary equipment, and the 154" Pusey & Jones Fourdrinier machine at the mill is being modernized to give highest possible efficiency and flexibility of operation on the types of sheets contemplated.

Wood grinding and other equipment being installed at Thunder Bay Paper Co., the Port Arthur subsidiary of Abitibi, will cost more than $1,500,000, according to Mr. Ambridge. Work has already commenced on the excavation and foundations for the new building. Remodelling of all wood-handling equipment is planned.

The new grinders will be of the Waterous hydraulic magazine super type, driven by 5000 h.p. motors, and have a capacity of 40 tons of pulp per day each. New Pascol (Port Arthur Shipbuilding Co.) knotters will be installed, and to supplement the existing screening and thickening equipment two new Cowan screens and three Oliver filters are to be set up in a new building, adjacent to the present screen room.

A new 12' x 45' Canadian Ingersoll Rand drum barker is being installed adjacent to the present screen room, and all conveyers, log haulups and railroad tracks are being arranged to handle wood delivered by water and rail more efficiently.

Facts About Abitibi

Abitibi Power & Paper Co.'s history began in 1912, when several existing mills were brought under single corporate direction. Lake Superior Paper Co., founded in 1894, is the oldest subsidiary. Total investments of Abitibi total more than $107,000,000.

Abitibi's wood limits extend over an area of more than 17,000,000 acres, and the annual capacity consumption of wood cut on the company's limits and purchased amounts to more than 900,000 cords annually, excluding the Sturgeon Falls mill which will soon be in operation.

The company maintains six power plants, generating a total of 170,000 h.p., and an additional 197,000 h.p. is purchased.

Maximum total production of the company's eight mills is 620,000 tons of newsprint, 94,000 tons of pulp and 39,240 tons of other products, annually.

At the peak of the season Abitibi

employs 10,000 persons, operates 65 miles of railroad and 80 vessels of various sizes and types.

Maintaining four townsites, the company paid out $12,250,000 in wages in 1945 and for transportation the company paid out $6,000,000 in 1944. Fuel and supplies cost around $8,000,000.

Mills owned by Abitibi apart from those referred to previously are: Iroquois Falls, with annual rated capacity of 192,800 tons; Sault St. Marie, Beaupre, in Quebec, and Pine Falls, Man.

Chief operating executives for the Abitibi organization are R. J. Askin, manager of mill operations, and C. B. Davis, manager of woods operations.

Assistant manager of mills is L. Cleminson and assistant manager of woods operations, W. Kishbaugh. Chief engineer is W. J. Zimmerman; chief electrical engineer, H. L. Sanborn; manager of purchases, M. G. Farquhar; general traffic manager, J. O. McKerrow; assistant traffic manager, J. A. Saunders; chemical engineer, A. Neill.

Mill managers are: E. M. Paukert at Iroquois Falls; W. A. Plant at Smooth Rock Falls; W. J. Olsson at Fort William; C. O. Sisler at Sault Ste. Marie; F. E. Sullivan at Sturgeon Falls; T. E. Silver at Pine Falls; G. J. Morrisette at Beaupre; F. C. Brown at Thunder Bay.

Provincial Paper Co. is an Abitibi subsidiary.

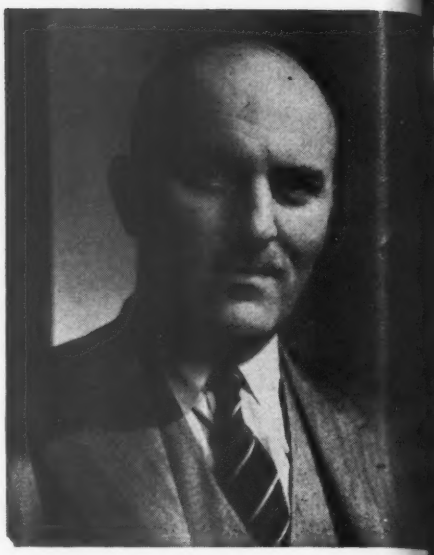
Directors of the Abitibi Power & Paper Co. include: Mr. Ambridge, J. R. Ripley, R. H. Reid, H. J. Carmichael, G. R. Cottrell, Allan Graydon, T. R. McLaggan, W. H. Smith, J. H. Gundy, J. S. D. Tory, E. W. Bickle.

W. H. SMITH, Vice President of Abitibi Power & Paper Co.

OUTLOOK IS BRIGHT FOR PULP AND PAPER

President Ambridge, of Abitibi Power & Paper Co., recently declared: "The outlook for the pulp and paper industry in Canada is bright. All our mills are fully occupied and the demand can be expected to exceed the supply throughout 1947. Dividend announcements emphasize the generally satisfactory financial position in the industry.

"The longer term future outlook for pulps and papers seems good. It may be that some recession from the present peaks is in store for us. It is, however, hard to believe that all of the lessons of the past remain unlearned; and I have firm faith that industrial activity will not be seriously diminished."



D. W. AMBRIDGE, President and General Manager of Abitibi Power & Paper Co., who outlined expansion program in interview with PULP & PAPER INDUSTRY.

Although the son of a Canadian and a Canadian citizen, Mr. Ambridge was born in Mexico City. He was sent to Montreal at the age of 12 to go to school and after five years at Upper Canada College he enlisted in the Canadian Field Artillery, soon afterwards going overseas in World War I. On his return to Canada he took an engineering course at McGill and after graduation joined Abitibi as control engineer at the Iroquois Falls mill. He later became control superintendent and in 1927 he became associated with the newly built Anglo Canadian Pulp & Paper Co. mill in Quebec City, where he became general superintendent a couple of years later. Five years later he was assistant general manager of Anglo-Newfoundland Development Co., closely associated with Anglo-Canadian.

In 1936 Mr. Ambridge joined Ontario Paper Co., then planning its big new mill at Baie Comeau, Que. Eventually he became vice president and assistant general manager of the Ontario organization. During the war years he held various executive posts with Wartime Shipbuilding and the Polymer (synthetic rubber) Corp., of which he became president.

When Abitibi came out from under its long receivership, Mr. Ambridge returned to the company with which he had started his career in the industry, becoming first a director and finally president and general manager.

Here are the pulp and paper mills of the Abitibi group, and their rated annual newsprint capacity: Iroquois Falls, 193,000 tons; Fort William, 57,000 tons; Sault St. Marie, 94,000; Manitoba Paper Co., 86,000; St. Anne Paper Co., 89,000; Thunder Bay Paper Co., 86,000.

Sturgeon Falls mill, now idle, has a potential capacity of 23,000 tons. Smooth Rock Falls capacity is 60,000 tons of bleached sulfite per year. The company also produces unbleached sulfite, groundwood, wrapper and board products.

Assistant to Askins

Les Cleminson is the new assistant to the manager of mills, R. J. Askins, of Abitibi Power & Paper Co., Toronto. He will have charge of pulp and specialty mills, while E. W. McBride assists Mr. Askins with supervision over newsprint mills.

R. J. ASKIN (left), Manager of Mill Operations, and C. B. DAVIS (right), Manager of Woods Operations, for Abitibi Power & Paper Co.

MR. ASKIN was elected new Chairman of Canadian Technical Section at big Montreal meeting in late January.

The first beater was invented in Holland in 1860.
From "A Pictorial History of Paper" published by Bulkley, Dunton.

PULP
PAPER

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Offices and representatives in 42 cities in the United States, Latin America, Europe and the Far East.

Forestry Plan and Mechanization Discussed at Atlanta Wood Meeting

Closer application to principles originally laid down by the Southern Pulpwood Conservation Association in cutting on other's lands by contractors is supposed to develop during 1947 as a result of discussions at the Jan. 29 annual meeting at Atlanta. Talk on this point waxed extensive in an afternoon's executive session.

Last year, at war's end and in the face of uncertain conversion time, the return to pre-war standards was discussed, and the issue laid aside. However, this time, in the face of irrefutable statements as to general laxity in respect to cutting practices, it was agreed upon that the individual companies belonging to the organization would go into this during the coming year.

Intensification of the Association's work on cutting practices will be accentuated by employment of area foresters. Of these H. J. Doyle has been employed to work in Virginia and North Carolina; Francis J. Cook, in the section west of the Mississippi River. The remaining territory will be divided between Ed Knapp and another forester employed for that purpose.

The Association meeting was opened by T. W. Earle, its president, who is president of Gair Woodlands and vice president of Southern Paperboard Corporation, Savannah, Ga. In part, Mr. Earle said:

"We know that a sound forestry program, including complete forest fire protection and the application of reasonable cutting practices will increase the forest resources in the South. This timber resource is necessary to support our business today — and tomorrow. We depend upon our forest crops in the South to support a 300 million dollar nontransitory industry, employing thousands of people in the woods and at the pulp mills. Each one of us has a keen interest in building up the economy of the region in which we are working rather than to tear it down. In our business, one of the predominant determining factors is the manner in which we treat our forests, not only those owned by our companies, but to a greater degree forests in the ownership of those from whom we purchase the majority of our wood."

Mr. Earle pointed out that in 1945 and 1946 the South each year produced well over seven million cords of pulpwood, or one half that of the United States. The Southern Pulpwood Conservation Association membership encompassed 85% of the southern production.

In going into the conservation program Mr. Earle emphasized that "we all recognize the need for closer supervision of our wood buying program and the manner in which the contractors handle their business transactions and other contacts which lead to supplying us with wood."

He extolled the new development of the tree planting machine as providing a tremendous expansion in that field; and emphasized the need for expansion of growing stock to take care of new mills and expansion of existing mill facilities.

Malsberger's 10 Points

In reviewing the accomplishments of the Association during the past year and looking toward the future, Henry J. Malsberger, general manager and forester, recommended that the following be effected:

(1) Employment of a Conservation Engineer by each member to thoroughly cover wood drain area.

(2) Providing by members adequate timber marking services to meet existing needs and encourage additional activity.

(3) Employment by the association of two additional area foresters to cover the areas not now so covered by this service.

(4) Association prepare and distribute new type of exhibit material on selected subjects.

(5) Continue support of Southern State Foresters programs for adequate forest fire control and nursery expansion.

(6) Association prepare and distribute a series of movie shorts on selected subjects such as fire control, reforestation, tree planting, cutting practices, etc.

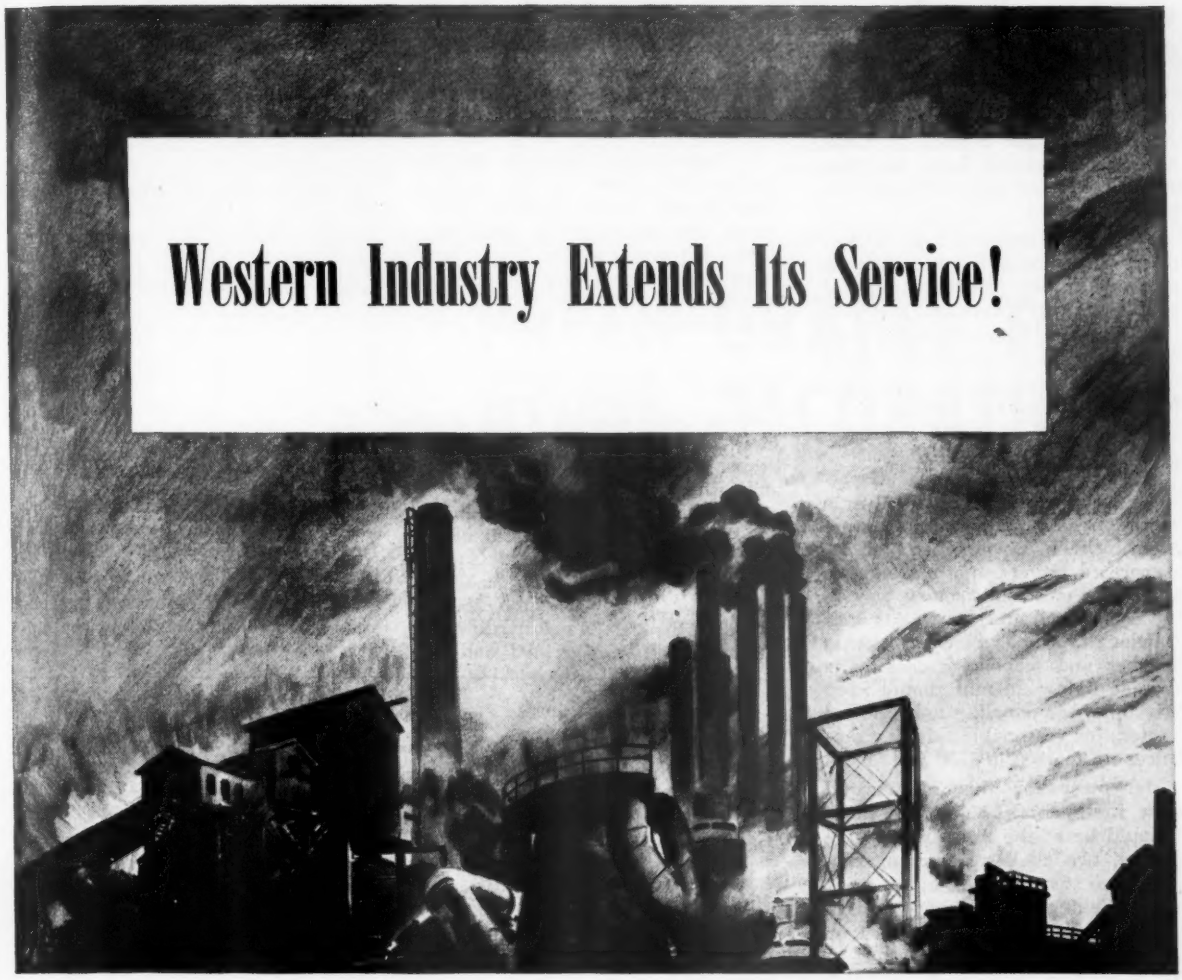
(7) A continuation of the forestry training camp project and extension to all states in the Association territory as rapidly as this project fits into the state's plans.

(8) A reenactment of marking residual timber for the cutting on non-company lands if the idea of taking a lease on this timber is adopted.

(9) A continuation of the distribution of free seedlings to small timberland owners.

(10) Inaugurate a method whereby the conservation activities of members are correlated with that of

PHOTOGRAPHED BY OUR REPRESENTATIVE AT THE ATLANTA MEETING (left to right): R. C. Brent, Jr., St. Joe Paper Co., Port St. Joe, Fla., Assn. Director from Florida; T. W. Earle, President, Gair Woodlands, Inc., retiring SPCA president and Director at Large; James H. Graham, West Virginia Pulp & Paper Co., Charleston, S. C., SPCA Director, and J. E. McCaffrey, International Paper Co., Georgetown, S. C., a Director of SPCA; G. Ed. Knapp, Logging Engineer, Southern Pulpwood Conservation Assn.; H. J. Doyle, Area Forester for Southern Pulpwood Conservation Assn. in North Carolina and Virginia; Francis J. Cook, Minden, La., Area Forester, Southern Pulpwood Conservation Assn. west of the Mississippi river.



Favorable climate, natural resources and new opportunities of many kinds have attracted thousands to live in the West. The impact of this new population—added to the normal expansion of original families—creates new opportunities and new obligations for Industry. To meet these obligations—to serve the needs of business and of agriculture—Western industries have been streamlining many processes, establishing new plants and expanding old facilities.

The Great Western Division of The Dow Chemical Company aids in this expansion by continuing to make available in as great a quantity as possible the essential chemicals required by many basic industries—every product of uniform high quality—manufactured in the West to serve the West.

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GREAT WESTERN DIVISION • BEAR BRAND PRODUCTS • THE DOW CHEMICAL COMPANY

DOW

CHEMICALS INDISPENSABLE TO INDUSTRY AND AGRICULTURE

the association so that collective efforts can be made more effective to extend conservation efforts.

Ed Knapp summarized the work in the mechanical field and both H. J. Doyle and Francis J. Cook, recently appointed area foresters, spoke briefly of their initial activities.

W. R. Hine, assistant regional forester, U. S. Forest Service, Atlanta, gave a graphic portrayal of the southern forest reappraisal.

C. H. Flory, South Carolina state forester, spoke in support of a move to apportion federal fire protection funds on the basis of need.

Rayonier's Mechanization

Detailed results obtained from operation of a pulpwood mill were given by R. F. Bower, Rayonier Incorporated, citing use of a Montague unit. The most satisfactory way to log a pulpwood mill, he said, is with crawler tractors with towing winches and wheeled arches. The average pulpwood mill should keep two or three small sized crawler tractors for reasonable skidding distances up to 1200 to 1500 feet.

Manpower for this mechanized show would total 17 men, of which 5 would be at the mill, two tractor drivers, two choker setters or riggers, one working back of each sulky. Felling and limbing requires six men comprising two crews of two fellers and one limber. There is the water boy, who serves as relief man, and a foreman.

Careful maintenance of the tractors may spell the difference between good and unfavorable operation. The company has tractors that have been in operation 4, 5 and 6 years. A good full-time supervisor is essential. This man deserves good pay.

The Montague mill, with its 17 men complement, should produce 50 to 60 cords per day. This means from standing tree to loaded truck. The following figures are based on 2,795 cords, from three pulpwood mills in October, 1946. Stumpage is not included.

LOGGING AND HAULING COSTS PER CORD

Cutting and Loading—Direct Labor	
Tractor operators	$ .44
Rigging	.38
Cutting down, limbing and top	1.20
Cutting up	.90
Loading	.36
Overtime	.27
	$3.53
Hauling—Direct Labor	
Truck drivers	$ .96
Unloading by hand labor	.27
Overtime	.18
	$1.41
Indirect Labor	
Supervision	$ .46
Repairs—own labor	.09
Road work	.08
Moving	.24
Call time	.03
Vacations	.05
Overtime	.14
	$1.09
Total labor costs	$6.08
Overhead—payroll taxes and compensation ins.	$ .12
Indirect Expense	
Fuel oil and gasoline—woods equipment	$ .06
Lubricants	.05
General supplies and small tools	.07
Purchased repair labor	.51
Materials for repair	1.09
Depreciation on equipment	.26
	$2.04
TOTAL COST PER CORD	**$8.24**

Mr. Bower predicted a trend toward six wheel three axle trucks with two back axles driving, with extreme gear reduction as high as 100 to one for off the road travel. The tendency in the past for the industry in the South to use light trucks will be discontinued.

Officers and directors of Southern Pulpwood Conservation Association for 1947 are as follows:

President: Jesse J. Armstrong, Union Bag & Paper Corp., to succeed W. T. Earle, of Gair Woodlands, Inc. Vice president: Willis E. Penfield, Gulf States Paper Corp., Tuscaloosa, Ala.

Members of executive committee: W. T. Earle, Gair Woodlands, Inc.; W. J. Damtoft, Champion Paper & Fibre Co., Canton, N. C.; Earl Porter, International Paper Co., Mobile, Ala.

Directors, in addition to those above listed: K. S. Trowbridge, North Carolina Pulp Co., Plymouth, N. C.; J. H. Keener, Champion Paper & Fibre Co., Canton, N. C.; James H. Graham, West Virginia Pulp & Paper Co., Charleston, S. C.; R. C. Brent, Jr., St. Joe Paper Co., Port St. Joe, Fla.; R. F. Weston, Hollingsworth & Whitney Co., Mobile, Ala.; Vertrees Young, Gaylord Container Corp., Bogalusa, La.; Ed A. Hall, Container Corp. of American, Fernandina, Fla.; J. E. McCaffery. International Paper Co., Georgetown, S. C.

Rhinelander Will Add Big Papermaking Unit

Rhinelander Paper Co., Rhinelander, Wis., home of the famous "Big Swede" Beloit machine which went into operation in December, 1941, will add another large, efficient papermaking unit for glassine and greaseproof, according to announcement by Folke Becker, president.

This new addition is included in a $4,000,000 expansion program, including requirements of the joint Marathon - Rhinelander Nagagami timber concession, acquired in 1943, and Rhinelander's own Canadian woodlands, both of which produced 43,000 cords of spruce for Rhinelander's 110-ton-a-day sulfite pulp mill. The company now has six Fourdriniers, including the 280-ft. long Big Swede. The latter installation was fully described and illustrated in the feature article of PULP & PAPER INDUSTRY'S December, 1944, issue. It has a 182-in. wire and speeds of 400 to 750 ft. per min., fast for glassine.

Sale of 30,000 shares of common stock in Rhinelander through the Cincinnati investment house of Clair S. Hall & Co., finances the expansion. This brings outstanding shares to 195,000. In the last fiscal year, net earnings were $782,510, or $5.22 a share on common stock, the only kind issued. All banks loans have been paid and stock dividends amounting to $2 a share were paid Dec. 1. Net sales were $7,483,051 in the last fiscal year.

F. W. "Stub" Johnson is operating manager and engineer at Rhinelander.

Mill Print Builds Plant at Vancouver, Wash.

Mill Print, Inc., of Milwaukee, is building plant No. 9 at Vancouver, Wash., installing printing, waxing, and fabrication machinery for making glassine paper bags, as well as machinery for fabricating Revelation wrappers. Allan H. Stone, of Milwaukee, assistant production manager of Mill Print, Inc., who is preparing the plant for operation, said it is to get into production early in March. C. A. Westberg, Jr., formerly bag department foreman of the Milwaukee plant, will be manager of this No. 9 plant.

Mill Print, Inc., has plants in Philadelphia, San Francisco, Los Angeles and Tucson, and owns the Nicolet Paper Mill at West De Pere. The Vancouver plant is in the old ABC cannery building.

Subsequent to starting operations, additional printing and converting equipment for Cellophane will be installed.

Finley Hunt Dies

Finley Hunt, manager of the wrapping paper department, San Francisco division, Zellerbach Paper Co., passed away last month. He had been with the company 35 years. Gaylord Dales, Mr. Hunt's assistant, has been appointed to his place.

PAPER · · · America's 6th Industry

PAPER DRAPES FOR HOME DECORATION

(NEWS ITEM: *One manufacturer alone is producing 7,200,000 pairs of paper drapes a year.*)

Paper draperies have won a permanent place in many homes all over the country. Embossed with an imitation cloth weave, these paper drapes decorate windows as artistically as expensive fabrics—at a fraction of the cost. Housewives acclaim their durability and strength, made possible by special treatment. Fade-proof, flame-resistant, paper curtains are also unaffected by grease or water. They can be cleaned with a damp cloth. We will gladly supply manufacturers' names if this product is not available at your neighborhood store.

Paper bags for vacuum cleaners . . . paper cans for frozen foods . . . paper tissues for auto windshields . . . new uses for paper calling for new standards of lightness and toughness, new standards of quality in performance. New responsibilities—new opportunities for the Pulp and Paper Industry.

The Puseyjones Organization is now devoting itself completely to the design and construction of Paper-Making Machinery built to new high standards of speed and efficiency, and to the modernization of existing machines.

Among the new machines under construction by Puseyjones are three of the largest and fastest Fourdrinier Machines, one for white paper for bags, one for Kraft liner board, and one for Kraft paper for multi-wall bags; also one Cylinder machine of record size and speed for the manufacture of floor covering felt. Other machines are under construction for the manufacture of M. G. Kraft specialties, facial tissues, and high grade bristols.

Puseyjones Engineers will welcome the opportunity to work with you in solving production problems.

THE PUSEY AND JONES CORPORATION
Established 1848. Builders of Paper-Making Machinery
Wilmington 99, Delaware, U. S. A.

New Penn Salt Plant in Portland Supplies Expanding Northwest Industry

Construction of a new plant in Portland, Ore., which will materially increase the supply of chlorine and caustic soda for the pulp and paper industry of the Pacific Northwest is progressing right on schedule—quite a feat these days. Pictures on this page show interior and exterior of the new plant of Pennsylvania Salt Manufacturing Co. of Washington at Portland.

Fred C. Shaneman, president of the company, whose headquarters are in Tacoma, Wash., announced to PULP & PAPER INDUSTRY that this new plant is being built exclusively to supply the rapidly developing pulp and paper manufacturing enterprises in the Pacific Northwest. The construction program also includes a DDT plant and the engineering as well as the actual construction supervision is being performed by members of the Portland and Tacoma organizations.

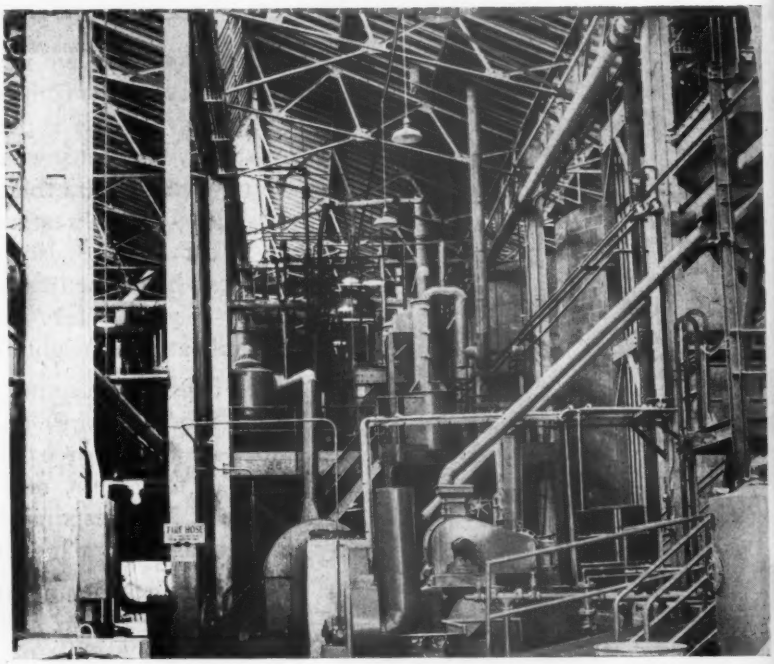
This will be the first chlorine and caustic soda plant in the Columbia-Willamette Valley and area, which is one of the most important and productive fields of the pulp and paper industry on the North American continent.

The large chlorate plant built by Penn Salt in 1941 partially appears in one of the pictures alongside the new construction. The chlorate unit supplied approximately 4,000 tons per annum during the war and its sodium chlorate production may be of some attraction to the Northwest pulp and paper industry because of the growing interest in the use of chlorine dioxide.

The new DDT plant which is being built will represent the first production on the Pacific Coast and will supply an important need for this insecticide for the control of many insects, troublesome to agriculture and also, will find use in the control of such forest pests as the Hemlock Looper. DDT is such a new product that undoubtedly many new uses will be found as adequate quantities become available for all purposes.

The contractor for the new construction is the Roy T. Early Co. of Portland and Tacoma.

AT LEFT IS NEW CHLORINE AND CAUSTIC SODA PLANT of Pennsylvania Salt Manuf. Co. of Washington under construction in Portland, Ore. This is being built entirely to supply expanding pulp and paper industry of Pacific Northwest. At right is existing sodium chlorate plant.



HERE IS INTERIOR VIEW of new Chlorine and Caustic Soda Plant of Penn Salt Manuf. Co. of Washington at Portland, Ore. This picture indicates the intricate kind of machinery that goes into a plant of this kind. Here is where liquor is evaporated and crystallized and dryers and storage silos are utilized.

PMMC Elects Green as President

The Paper Mill Men's Club of Southern California elected new officers for 1947 at the Brentwood Country Club last month. Besides the election, the meeting was notable in that 11 of the 13 past presidents of the PMMC, all still active in the club's affairs, were present.

Newbey A. Green of Crown-Willamette Paper Co. rose from vice president to president, according to PMMC custom. G. H. (Jerry) Madigan of Johnson, Carvell & Murphy, moved up from secretary to vice president; Ben Bahnsen of California Cotton Mills was elected treasurer and Irvin E. Damon of Northern Paper Mills was chosen secretary.

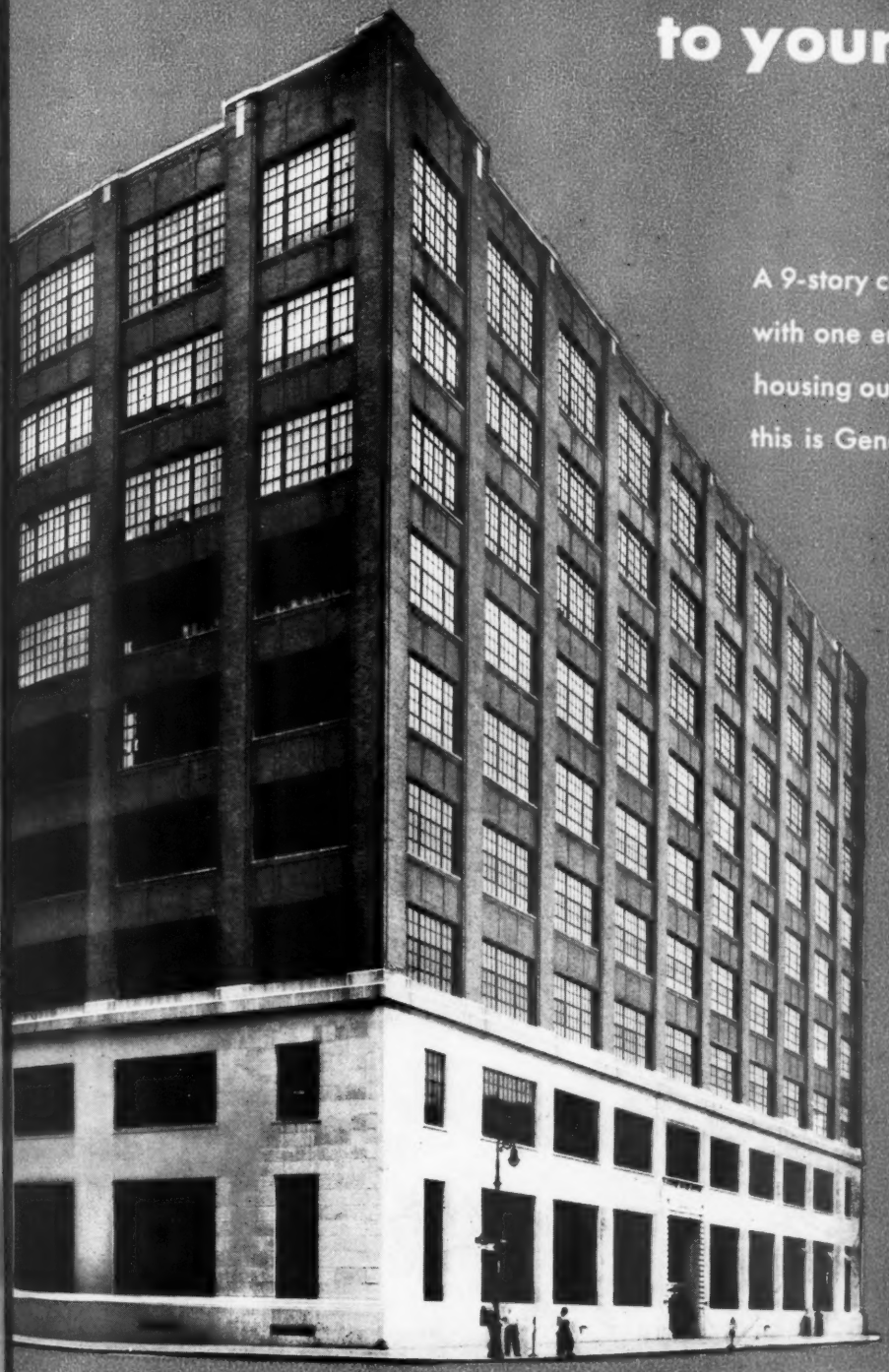
J. W. Genuit of Fernstrom Paper Mills, and Tom E. Bruffy of the Dobeckmun Co., retiring president and treasurer, respectively, were given a send-off. Mr. Bruffy's retirement was brought about by his promotion to sales manager of his company's West Coast division, with headquarters in Berkeley.

Chairman of the meeting, which started in the afternoon with a golf tournament and wound up with a steak dinner, was Al Hentschel of Johnson, Carvell & Murphy.

Calder and Robertson Join Institute Trustees

Alexander Calder, president of the Union Bag & Paper Corp., and Reuben B. Robertson, Sr., president of Champion Paper and Fibre Co., have been elected new members of the board of trustees of the Institute of Paper Chemistry in Appleton.

add twenty-five thousand square feet to your laboratory



A 9-story citadel of glass, brick and steel, with one entire floor, 25,000 square feet, housing our Technical Service Laboratory; this is General's New York headquarters.

Here results don't just happen ...they are definitely brought about. There is no ceiling to the operations of our chemists. Processes are endless. Seed ideas planted in experiments yield a harvest of important findings. General invites you to amplify your present research facilities by annexing our Laboratory when you have a special problem. Clients like the way our chemists project their thinking and the suddenness with which they find the answers.

GENERAL DYESTUFF CORPORATION

FOUR-THIRTY-FIVE HUDSON STREET · NEW YORK CITY

First View of New Kimberly-Clark Sulfate Mill Site

Construction camp and mill site of new LongLac sulfate pulp mill being built by Canadian subsidiary of Kimberly-Clark Corp., Neenah, Wis., at Terrace, near Schreiber, Ontario. This will mark entry of a longtime leader in sulfite field in sulfate pulp production. The Canadian wood used, rather than the process, is considered fundamentally important in obtaining the high quality products made by this company.

Preliminary construction in connection with the Long Lac development of Kimberly-Clark Corp.'s Canadian subsidiary at Terrace, near Schreiber, Ontario, has proceeded rapidly during the past few months.

The accompanying air view shows the headquarters for engineers, office workers and laborers in the center of the new construction camp, which includes dormitories at the far left; dining rooms, engineering and administrative offices and water tower. A line of garages, offices for the resident engineer and first aid room appear near the center of the picture, with the lumber piles and warehouses at the right.

The Canadian Pacific Railway's railroad spur is shown in the long sweeping curve as it circles below the camp and angles out towards the mill site. Henry C. Broom, vice president of K-C, has announced the mill will go into production in late 1948. It will make 300 tons daily of bleached sulfate pulp.

Capacity of the work camp was about 400 men when this photo was taken, but expansion is continuing and some 1500 men are to be accommodated there during the summer of 1947 when construction of the mill will be at its peak.

By the end of 1946 approximately 75 houses had been completed with light, sewer and water connections. Town architects are Sinclair & Collins of London, Ont. Basements are dug and concrete poured by Ontario Construction Co., and precision-built sides, partitions and roof are erected by North American Builders.

The basic plan of townsite development calls for clearing and grading all town streets and laying out of all the town lots by the end of 1946. It is proposed to preserve the natural, rugged beauty of the site by leaving as many trees standing as possible, thus departing from the old practice of clearing the entire area of all vegetation prior to construction. A similar plan, incidentally, has been followed at Marathon, Red Rock and other new pulp and paper communities in Ontario. An emiment town planner, Dr. A. Faludi, of Planning Consultants, Ltd., is supervising the whole layout.

The mill itself has been planned according to the design of Stadler, Hurter, Ltd., Montreal, with Leonard Wayman of Chicago acting as consulting architects. By this winter, it was hoped to have the mill site cleared, the pulp storage building erected and all boiler house foundations laid.

Between the mill site and the shore of Lake Superior, the Ontario Hydro - Electric Commission will construct a dam across the Aguasabob River and cause it to flood about 3,000 acres of present woodland, which is now being cleared by the Kimberly-Clark woodlands department. Primarily, this project will supply power for the new mill and village, but it will also be tied in with the Thunder Bay system which includes the Lakehead cities of Port Arthur and Fort William.

Oppose Reductions In Paper and Board Duties

George J. Olmsted, Jr., president of the S. D. Warren Co., and president of the Book Paper Manufacturers Association, in opposing any reduction in printing paper duty before the Committee for Reciprocity Information, said "under present rates, Canada has developed a tremendous paper industry and looms as a serious competitor for the U. S. market of all uncoated printing papers."

"Between 1911 and 1921, during which the tariff on newsprint was removed, the increase in Canadian production was from $23,226,479 to $151,003,165 and by 1941 the output reached $334,726,175" he said. "It is a short step for the Canadian newsprint industry, and particularly low speed mills, to adapt themselves to making book papers."

Stressing rapid growth and present importance of the paperboard industry, Henry D. Schmidt, of the National Paperboard Association, requested no reduction in tariff on foreign competing products.

United Paperboard's Carton Business Expands

Norman A. Olson, formerly New England representative of United Paperboard Co., has been transferred to the company's regional sales office in Chicago, it was announcd by Harold W. Kephart, vice president, Leeds Mitchell, Jr., will continue as New England representative of United's folding carton division.

With United's new Springfield, O., folding carton plant in full swing, the company is planning further expansion of sales and service in the Middle West.

United operates board mills in Urbana, O.; Lockport, N.Y., and Thomson, N.Y., and folding carton plants in Springfield and Victory Mills, Syracuse and Brooklyn, N.Y.

More Wood Cars

An order for 200 pulpwood cars has been placed with the Pullman Standard Manufacturing Co. by the Central of Georgia Railroad. With new mills being constructed in Georgia by Southern Paperboard Corp., the Mead Corp., and Armstrong Cork Co., the carrier anticipates an urgent demand for additional carrying units.

S. S. PHILBRICK, JR.

Philbrick Now Heads Pacific Coast Supply Office in San Francisco

S. S. Philbrick, Jr., now associated with the San Francisco office of the Pacific Coast Supply Co., will shortly assume charge of the California territory. This change, announced by John M. Fulton, manager of the Pacific Coast Supply Co., follows the personnel change which will add H. J. Bolger to the sales staff of F. C. Huyck & Sons.

ROY W. KELLER

Mr. Philbrick, a lieutenant in the U. S. Navy during the war, has been with the Pacific Coast Supply Co. since Sept., 1946. Before entering the service, he was with Container Corp. of America at Philadelphia.

Associated with Mr. Philbrick will be Roy W. Keller who will contact paper and board mills in California. Mr. Keller has been with Pacific Coast Supply Co. in Portland, Ore., and only recently moved to San Francisco. Mr. Keller served as captain in the U. S. Army.

Alaska Pulp Mill Situation

"Three concerns are actively considering building newsprint mills in Southeastern Alaska, one in the vicinity of Ketchikan," George Sundborg, general manager of the Alaska development board, told the Pulp & Paper Industry recently.

Sundborg said that all engineering plans are completed and at least two of the companies will come into Alaska this year. One plant, he said, already has ordered machinery and is prepared to start work within 60 days following the completion of a contract with the forest service. However, it is undetermined when the contract will be completed, he emphasized.

The largest of the three plants contemplated for Southeastern Alaska by the interested companies would be a $28,000,000 investment, he said.

It was pointed out by Sundborg that operation of these mills—when they get into production—will help to reduce present high transportation costs.

Although Sundborg was optimistic that action would be taken this year toward establishment of pulp mills in Southeastern Alaska, the chief forester of the Territory, B. Frank Heintzleman, announced in Washington, D. C., that he believed Indian tribal claims to vast forest areas, filed in a series of "aboriginal rights" cases, would delay any investment of capital sufficient to establish a pulp plant for two or three years.

Still A-Trying Paper Apple Boxes

Paper apple cartons produced by Canadian Boxes, Ltd., subsidiary of Pacific Mills, Ltd., at Vancouver, B. C., were used for packaging apples grown in the Okanagan valley of British Columbia, during the past season. About 100,000 of the corrugated boxes were used in an experimental way.

Mrs. (Palm) Carlberg With Paper Firm

Mrs. Glory Palm, Zellerbach Paper Co., San Francisco, has resumed her former position as advertising manager of the company, and through her marriage on Jan. 25 to Donald H. Carlberg, she changes her name to Glory Palm Carlberg.

Course Leader Lauds "Pulp & Paper Industry"

One of the best scources of information on the international pulp and paper industry is the North American Review Number of PULP & PAPER INDUSTRY, Harold M. Annis, Oxford Paper Co., told 600 students enrolled in a course on pulp and paper in the General Education Division of New York University last month. Mr. Annis is chairman of the course which began on Feb. 6 and extends to May 29.

Among well known industry men who are lecturing are: Vance P. Edwardes, International Paper Co., and president of TAPPI, on "Manufacture of Sulfite Pulp and Groundwood", John B. Calkin, Union Bag & Paper Co., on "Manufacture of Alkaline Pulps"; Chester G. Landis, American Cyanamid, on "Paper Sizing and Loading", Rex Vincent, Bulkley Dunton Pulp Co., on "Beater Room Practices", Thomas Murphy, Mead Corporation, on "The Paper Machine and Paper Mill Finishing", J. D. Malcomson, Robert Gair Co., Inc., on "Manufacture and Conversion of Paperboard", Dr. Louis T. Stevenson, AP&PA, on "History and Economics of the Industry", and R. G. Macdonald, secretary of TAPPI, on "New Developments in Manufacture and Use." Those wishing further information about the course should address Mr. Annis, Oxford Paper Co., 230 Park Avenue, New York.

Government Mill Proposed in New Zealand

The New Zealand government is reported negotiating for the establishment of a subsidiary newsprint industry as an adjunct to an extensive forestry program. A government spokesman said a "condition" would be that newspapers print "the truth."

New Zealand at present consumes about 2,000 tons of newsprint a month, mostly supplied by Canadian mills.

Only paper mill now in operation there is the Whakatani packaging paper and board mill.

Nichols Appoints Schilling General Mgr.

Nichols Engineering & Research Corp. announces appointment of F. B. Schilling, vice-president, as vice-president in charge of sales and general manager; R. W. Rowen, vice-president, as vice-president in charge of engineering and research; S. Burgess as vice-president in charge of field operations; and Harold E. Ingalls has been put in charge of sales of Nichols Freeman Vortrap and bark burning equipment.

Stein, Hall & Co. Office

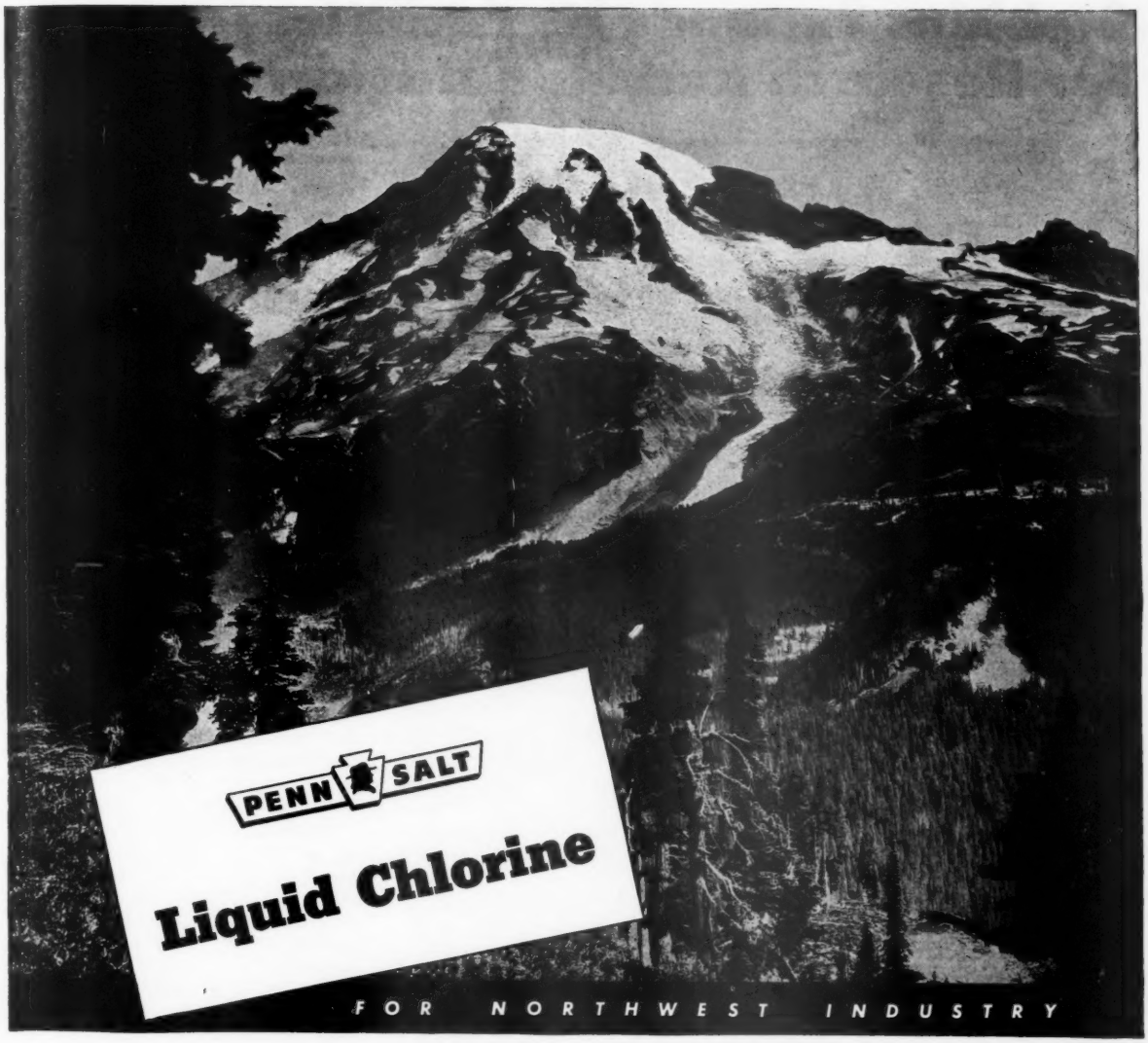
Stein, Hall & Co., Inc., announces opening of a New York Sales Branch office in the Empire State Bldg., New York City, under direction of C. J. Dunachie, manager and E. M. Clevan, assistant manager.

Maass Member Defense Board

Dr. Otto Maass, of the Pulp and Paper Research Institute, Montreal, has been appointed a member of the four-man Defense Research Board of Canada.

Phelps Leaves Solvay

Maurice W. Phelps has left Solvay Processes Co., to join Peter J. Schweitzer, Inc., Spottswood, N. J., in an executive capacity.



Besides doing duty as a bleach in the pulp and paper industry, liquid chlorine serves Northwest Industry in many ways. It is used in the purification of drinking water . . . helps recovery of metal from ores . . . bleaches textiles and laundry bundles . . . comprises a basic ingredient of DDT and other insecticides . . . aids in sewage disposal.

The first tank car of liquid chlorine ever shipped in North America rolled out of Pennsalt's Wyandotte plant in 1909. Since then, Pennsalt has been a pioneer in chlorine's ever-widening scope of service . . . and has steadfastly maintained rigid standards in the production of liquid chlorine for Northwest Industry.

PENNSYLVANIA SALT
MANUFACTURING CO. OF WASHINGTON
Chemicals
TACOMA, WASHINGTON

Pennsalt products include:

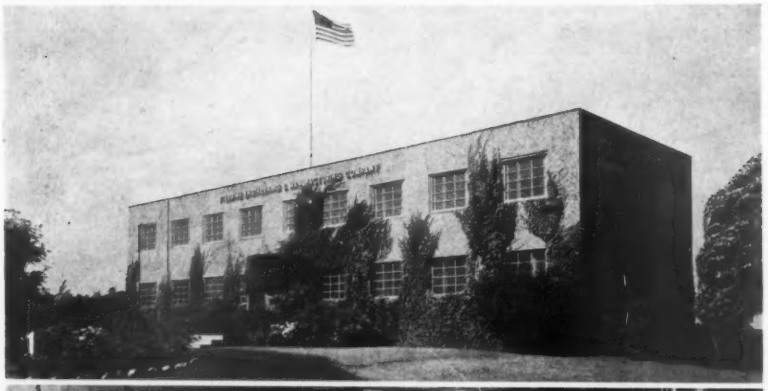
Liquid Chlorine and Caustic Soda
for the Pulp and Paper Industry

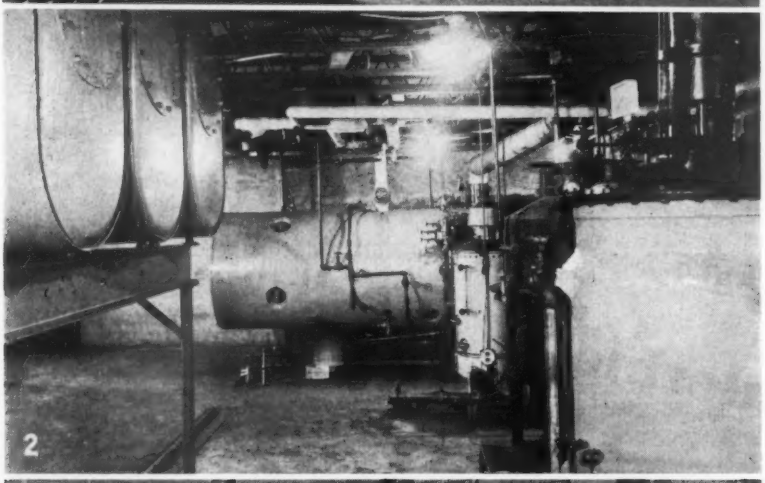
Also:

Bleaching Powder • Anhydrous Ammonia • Perchloron* • Sodium Chlorate • Potassium Chlorate • Sodium Arsenite • Sodium Hypochlorite.

*Reg. U. S. Pat. Off.

Stebbins Expands Its Facilities For Research and Manufacturing





SCENES AT STEBBINS ENGINEERING & MANUFACTURING CO., Watertown, N.Y.

1. Office and Laboratory Building.
2. New Testing Room.
3. Corner of Drafting Room.
4. Part of Chemical Laboratory. There is also a Physical Laboratory, equally well-equipped.
5. In the Library—one of industry's best.

In many a long established sulfite mill in northern New York and Wisconsin, the name "Stebbins" is given in answer to a standard question of a PULP & PAPER INDUSTRY field editor: "Who designed the mill?"

These are mills built as far back as 1884 when H. W. Stebbins, a member of an old papermaking family, came to this country from England and established what is now known as the Stebbins Engineering and Manufacturing Co. of Watertown, N. Y. Throughout the central Atlantic area and in parts of New England, the Stebbins firm took part in the development of the sulfite pulp process.

Today the company is deep in the problems entailed in the new bleaching techniques. From out of Watertown and from company subsidiaries in Montreal, Canada, and Seattle, Wash., have come the development of linings for towers to be used in direct chlorination, caustic cooking, acid treatments; and with the invention of hot acid recovery came another need met by the company—linings in high and low pressure acid accumulators and auxiliary equipment.

So recently PULP & PAPER INDUSTRY went to Watertown to see the headquarters of some of these developments in the industry, because behind every "mill story" is always another story, often just as interesting as the story of the mill itself. In the case of Stebbins Engineering & Manufacturing Co., it's the story behind literally scores of mills.

Out of hundreds of users of Stebbins services and developments perhaps not more than a score have yet had an opportunity to visit the modern headquarters and research building that stands on a green knoll by the side of Eastern Boulevard on the outskirts of Watertown. It was built in this center of the industry in 1937, yet it has been twice

enlarged since then, and there is ample room on the property for further expansion.

When you enter the building you get the feel of engineering efficiency, of intense concentration on industry problems—and the equipment and facilities are there, as well as the "know how." It's one of the most modern structures of its kind in the country and much more than the head office of a company. In it are a complete chemical and physical laboratory, a testing department in which actual conditions of the mill can be simulated, and a factory for the production of some of the highly specialized products which go into Stebbins installations. In addition, there are shop facilities for the repair and maintenance of equipment which cannot be immediately duplicated. There is, naturally, the engineering department with its staff of competent engineers, all with solid backgrounds in their work and all Stebbins-trained before they take up a mill problem. Important, too, is the library, one of the most complete technical pulp and paper libraries in the world.

On this visit, PULP & PAPER found the company engaged in its specialization of the application of reinforced hollow tile to unique types of construction, particularly large storage tanks, washer vats, saveall vats, and regulating and metering vats. At that moment, Stebbins men were widely scattered throughout the United States and Canada, working at the mills. Although a sensible secrecy is maintained as part of the company's protection to its clients, it can be said that Stebbins men were on the job in the Pacific Northwest, in the deep South, in New England, and Canada. One executive was making a tour of Scandinavian countries mills to make certain that no new developments were overlooked there.

Stebbins officials are notoriously reticent about themselves; the job in hand is the thing with them. But when cornered, Carl Richter, president of Stebbins, admitted that he began travelling the country with his father at the age of 14, spending all summer and holiday vacations from school working at the lining business. "And I mean working," he says.

This meant that when he completed his engineering course at Clarkson College in 1922 he had already accumulated the field experience which ordinarily comes only after graduation. Between 1924 and 1929 he served as sales and service engineer for Paper Makers Chemical Co., at Stoneham, Mass., and Portland, Me. He returned to Stebbins in 1929 and served there as secretary and later vice president and treasurer. In 1933 he received the degree of chemical engineer, and he holds the professional engineering license in New York State and Maine.

MEN OF STEBBINS (left to right):

CARL RICHTER, president; ALBERT S. QUINN, Vice President of the Pacific Coast subsidiary; E. F. TUCKER, Vice President and Technical Director.

The present management, with Mr. Richter as president, stems directly from a partnership formed between Mr. Stebbins and A. F. Richter, who later took the office now succeeded to by his son. With Mr. Richater is E. F. Tucker, vice president and technical director, also a graduate of Clarkson. He holds the ChE degree and is a member of several engineering and chemical clubs throughout the country, as well as active in technical associations. After a varied experience in the paper business and other fields, he joined Stebbins in 1923 as field engineer and spent a great share of his time on the west coast. Later he was active in the company's Canadian subsidiary. It was in 1937 that he returned to Watertown headquarters.

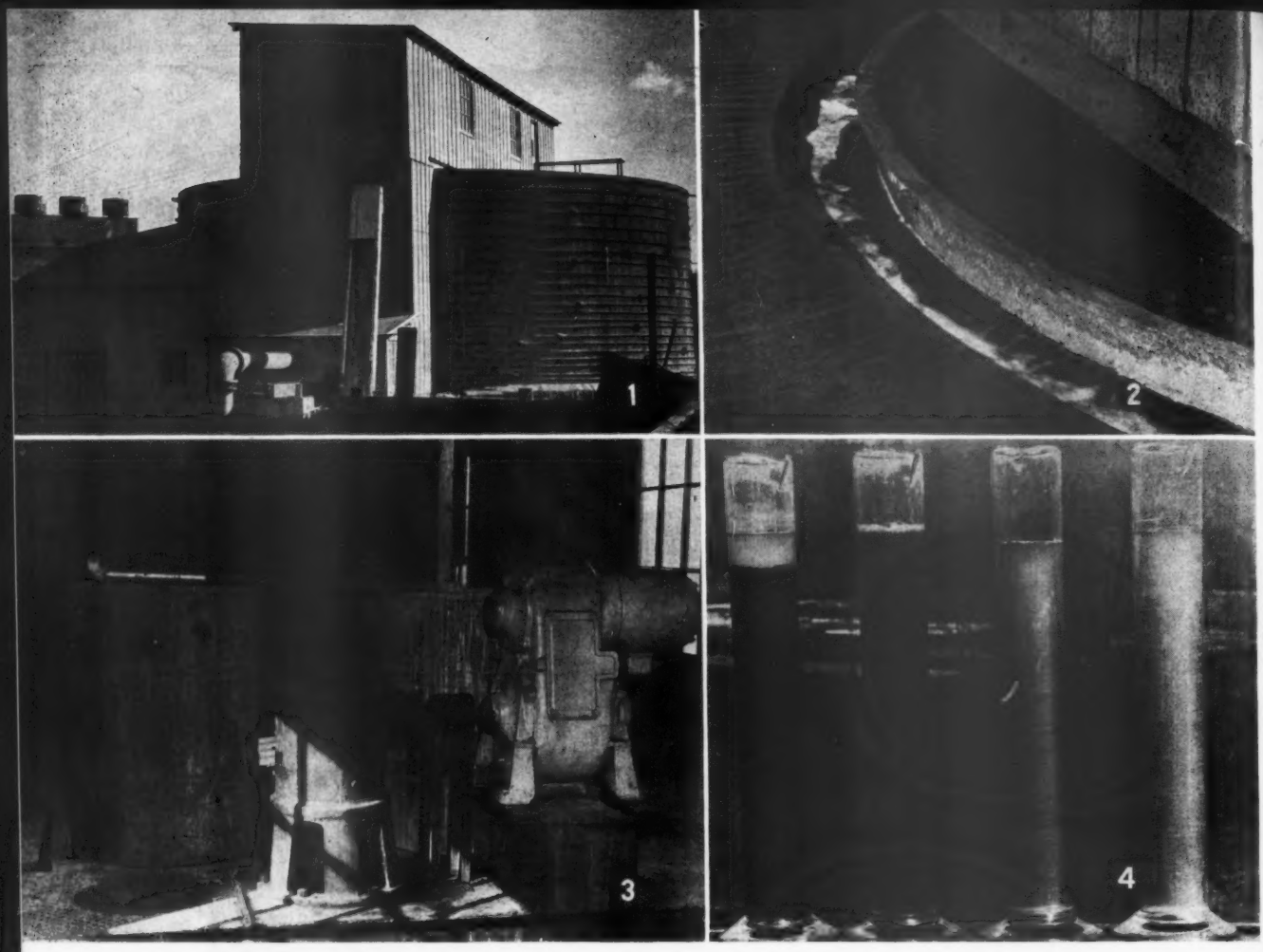
Albert S. Quinn is vice president in charge of the Stebbins Engineering Corp. at Seattle. He is a native of Watertown, and a Cornell engineering graduate who joined Stebbins in 1926 and traveled for the company throughout Canada with headquarters at Montreal. He was transferred to the west coast in 1930 to open the office there.

From its beginning to the end of the first World War, the company handled considerable engineering and mill construction, as has been indicated; and during the first War there were extensive installations of the patented Stebbins acid system for bisulfite liquor. Prior to the adoption of lime rock towers, the Stebbins system was almost standard in the industry. Following the first European conflict, Stebbins entered the bleaching field, giving particular attention to the development and construction of high density bleeching towers and similar equipment. This paralleled their lining and engineering work. Then in 1930 the company began to concentrate its experiences on acid-resistant and other linings.

During the recent World War, almost all Stebbins efforts were devoted to work in the chemical plants aligned with the war effort for magnesium, manganese, TNT, and various heavy chemicals production.

The Canadian subsidiary—called the Canadian Stebbins Engineering & Manufacturing Co., Ltd.—was established in 1927, and a year later a branch was established on the Pacific coast and this developed into the Present Stebbins Engineering Corp., Textile Tower, Seattle.

Thus for more than 60 years, Stebbins has marched with the tremendous progress of the pulp and paper industry of the North American continent, and has been active in foreign fields as well. It is Stebbins who pioneered and developed carbon linings for kraft digesters, and for other equipment where high alkali concentrations are present. Today they are active in the problems of linings for use in the ammonia and magnesia base cooking which the whole industry is watching with such wide interest.



VIEWS OF WASTE WATER CLARIFICATION equipment at Downingtown, Pa., mill—first installation of its kind. These pictures exclusive by PULP & PAPER INDUSTRY.

1. Shows Accelator tank and housing for chemical makeup and feed equipment.

2. Shows draft tube, launder, take-off weir and a section of clarifying area of Accelator.

3. In foreground center is reducer to which propeller shaft is attached and in right foreground is variable speed reducer. In background, two 100-gallon drums used as storage for activated silica feeder. The sodium silica is activated at ground level and pumped to these storage tanks for feeding.

4. Left to right: Concentrator discharge sample; waste (coagulated) to the Accelator clarifier; clarifier effluent samples, and raw creek water as taken into plant.

Downingtown Mill Improves Water Clarification Process

Straight sedimentation has been used for several years at the Downingtown Paper Manufacturing Co., Downingtown, Pa., for the clarification of final waste water and removal of suspended solids. These solids consist of fiber, mineral filler, and miscellaneous organic solids found in the usual raw stock for box board manufacture.

The disposal of solids accumulated by straight sedimentation was complicated and expensive. Now an accelator clarifier has been installed by Infilco Incorporated of Chicago to eliminate the sludge handling.

This was, according to Thomas E. Brookover, superintendent and chemist at Downingtown, the pioneer installation of its type.

The Accelator operation builds up floc particle size by re-circulation of slurry with incoming raw waste to which a coagulant has been added.

Says Mr. Brookover: "Theoretically, six to seven volumes are in circulation for each volume of incoming raw waste. Such re-circulation is accomplished by the designed annular construction and the use of propellers or impellers on a central shaft driven by a five-horsepower motor working through a speed reducer. The effluent discharges over a circular weir after rising through the slurry bed, and this slurry level usually lies four to seven feet under the surface. On one side of the Accelator are three bins or concentrators with take-off pipes for removal of accumulated solids"

The overall dimensions of the unit are 38 feet in diameter and 16 feet nine inches deep at the maximum. It was designed to handle 3,000,000 gallons per day with a solids load of 6,000 pounds. It has been handicapped, Mr. Brookover says, by a continuous overload of solids. He states that no reduction of the amount of coagulation has been realized in using the accelerator and the coagulation dosage varies, and is dependent upon, the clarity of the effluent. Activated silica is used as

an aid in clarification and floc formation. The sludge is removed at a consistency of *0.4* to *1.0* per cent, and averaging about *0.6* per cent, depending on the solids load and the rate of removal.

According to Mr. Brookover, no detrimental effect has been encountered in the use of the solids in the filler stock on the board machine where they have been used continuously for more than a year. No increase in solids losses from the machine as a result of the returned sludge has been found. No full time operator is required at the unit.

The total flow is not handled continuously by the unit at this time, the high flows and high solids loads prohibiting it. There is some sludge collections in corners of the concentrators, and these tend to decompose slowly and rise with trapped gasses to the surface. Alum is fed ahead of the water supply pump. Sudden temperature changes may upset the slurry bed temporarily, it has been learned at the Downingtown mill.

The Downington unit was the first of its kind installed, and it is said that later designs feature greater surface area per volume of flow, and an improved concentrator design. Too, the Downingtown installation was made during the war, and several substitute materials and improvisations had to be made.

But the process is an interesting example of how a forward-looking management and an experienced equipment company paved the way for a method of satisfactory clarification, and the Downingtown installation represents many advantages over the situation existing prior to its operation.

Powell River Forester

Prof. John E. Liersch, head of the department of forestry at the University of British Columbia, has resigned to join the Powell River Co. as forester. Mr. Liersch is one of the best known foresters in British Columbia and during the war years was in charge of logging operations for Aero Timber Products, Ltd.,

India Wants American Machinery; Hopes for Its First Newsprint Mill

In the next few years India is planning great expansion and development of its own pulp and paper industry, according to two young official representatives of that country who were interviewed recently by this magazine.

J. C. Aggarwala, from Northern India, and P. R. Deshpande, from the Central Provinces, told PULP & PAPER INDUSTRY that these are their country's big objectives:

1. Importation of American papermaking machines and methods to replace British, which now dominate the field in India.

2. Construction of the first newsprint mill in India, , to make that country less dependent on Scandinavia.

3. Use of coniferous woods in pulping (now only bamboo and grasses are used).

4. Construction of new paper (bamboo) mills at Ballarpur and Chandar in the Central Provinces.

Among a large group of young Indians sent to the United States to study various industries, these were the only two selected for the paper industry. They will spend two years here—the first one in the College of Forestry, University of Washington, Seattle, where they will take special courses in papermaking and paper mill management, and will devote their spare time to visiting big Pacific Coast mills. In their second year they plan to visit paper mills and paper machinery manufacturers in the East and South.

Their present address is 5026 19th Ave. Northeast, Seattle 5, Wash.

"We have heard that American techniques and machines are more

J. C. AGGARWALA (left) and P. R. DESHPANDE, two young men from India who called at PULP & PAPER INDUSTRY editorial offices to tell of their mission in this country in behalf of India's papermaking industry of the future. Mr. Aggarwala, from Punjab, was sent here by the government of India, and Mr. Deshpande, who hails from Dehra Dun, was sent by the Central Provinces government.

advanced than those in England and that is why we want American machines and American processes in India," said Mr. Aggarwala.

14 Mills in India

"At present there are just 14 paper mills in India, all of them using bamboo or grass, and making both paper and board," he continued. "The biggest group are in Bengal and are British-owned. On the whole, about 60% of the paper industry in India is in native ownership and the remainder is in British hands."

Mr. Aggarwala obtained a master's degree in chemistry at the University of Punjab in Lahore and worked in a mill in the North which makes 1,000 tons per month of paper from grass or rushes.

Mr. Deshpande comes from the Central Provinces where he studied at the Forest Institute at Dehra Dun. Most of the mills in the Central Provinces, he said, use bamboo for raw material.

"The present mills in India make about 100,000 tons of board and paper annually, which is about 50,000 tons less than the present needs," said Mr. Deshpande. Both agreed that the spread of education and modernization among the millions in that country would create a demand for paper many times greater than that very small figure.

There are considerable stands of coniferous trees in Kashmir and in Tehri Garhwal they said, to support a newsprint mill and they expect such a mill would be built in either one of those northern provinces. Mr. Deshpande said the types of coniferous trees available for papermaking in Northern India are:

1. Pinus Longifolia (long leaf pine —called "Chiv" in the native language).

2. Picea Morinda.

3. Cederous Deodora.

Meanwhile, native Indians have completed the financing of a company to build a mill in Ballarpur, which will make paper from bamboo. A similar mill is planned at Chandar, which, they said, is more likely to be privately-financed than built with government funds.

NEW SWEDISH EQUIPMENT FOR PULP AND PAPER MANUFACTURE

A number of returning visitors to Sweden as well as Swedish company representatives making their first postwar trips to this country have been interviewed in recent months by PULP & PAPER INDUSTRY editors on both coasts. All of them brought back news of certain newly developed Swedish mill equipment.

Here follows briefly a list of the Swedish machinery or equipment developed during the war which were described in these interviews:

1. Astrom's (the inventor) chain barking machine for small wood of maximum 15-in. diameter (probably later for 24-in. wood). One machine has been ordered for a Wisconsin mill where it will be given its "tryout" on this continent. It eliminates bruising and losses in drum barking, it is said, and requires only 25 hp. to clean 300 small logs. Chains attached to springs are mounted on a disc like apparatus
2. The Karlstad Works' new continuous system digester for sulfate pulp.
3. Karlstad's upside down flat screen which picks up fibers—working opposite to the orthodox screen.
4. Kamyr's high density bleaching tower.
5. The new improved Jonnson screens for pulp and knotting, marketed by Bird Machine Co. in this country.
6. A 100-foot long barking drum.
7. Ekstrom Machine Co.'s rotary screen.

Link-Belt Occupies New Plant in Seattle

Link-Belt Company Pacific Division, Seattle, Wash., manufacturers of conveying and power transmission machinery, have completed and are now occupying their new plant at 6th Ave. South (Hinds St.), Seattle (4).

This modern plant contains a machine shop, larger warehouse facilities, and up-to-date office building. Fred A. Koepf, district manager, and Harvey V. Eastling, manager of engineering sales, direct activities in the Pacific Northwest area.

Bob Wertheimer Heads Yacht Club

R. S. Wertheimer, Jr., vice president and resident manager of Longview Fibre Co., is the president for this year of the Longview, Wash., Yacht Club, in which several pulp and paper industry executives are active members. This club recently moved into a new home.

Scale Up at Southland

At Southland Paper Mills, Lufkin, Tex., the management and AFL PPW union recently negotiated an 8 cent hourly increase for employes. The union states that this totals a 21 to 25 cent increase since V-J Day.

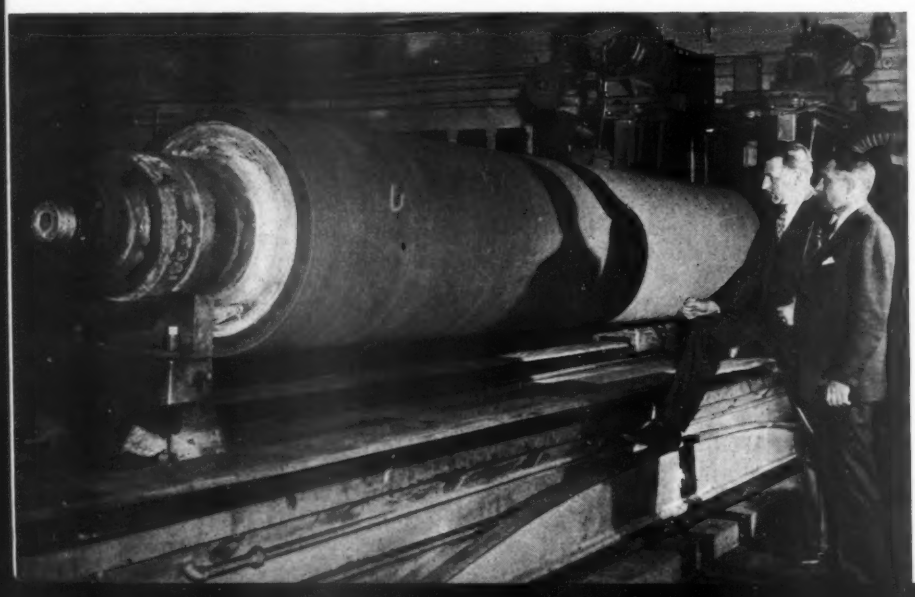
Burgess Gets 50-Yr. Pin

Charles E. Burgess rounded out 50 years of service with the Zellerbach Paper Co. recently, and was presented with a 50-year pin by Harold L. Zellerbach, president. Charlie served in various sales capacities of the San Francisco division and in recent years has been a member of the service department.

BMT's Miss Hanson

Announcment has been made of the appointment of Miss Elma Hanson, acting credit manager of Blake, Moffitt & Towne, Seattle, to membership on the executive committee of credit women's groups of the National Association of Credit Men.

THIS MARKING ROLL, 33 inches in diameter and 18 feet long, is one of largest marking rolls ever covered by B. F. Goodrich Co., Akron, Ohio. Originally covered by the Vulcalock steel jacketed process in 1940, it was recently covered again for the St. Helens Pulp and Paper Company, St. Helens, Ore. Boxed for shipment, it weighed 30,200 pounds. W. E. Fike (left), foreman of Goodrich large roll covering department, and A. C. Lutz, sales engineer, inspect the roll on a grinder in Akron plant.



Australian Mill Will Make More Newsprint

Plans for the extension of the Australia Newsprint Mills Pty. Ltd. were announced at the annual meeting of the company recently. A newsprint machine is to be added, bringing the mill's output to 70,000 tons annually within three years.

Estimated expenditure on the plant, building and equipment is $560,000, including provision for a light railroad into the forest concessions.

The company's existing mill, located at Boyer, Tasmania, is the only newsprint mill in Australia. It came into production during the early days of World War I with one paper machine whose production is said to have reached a capacity of 30,000 tons a year. The mill was designed and built under the direction of the late Percy Sandwell of Vancouver, B. C.

Pollock Expands In Texas

The Weiner Paper Co., 321 South Salado, San Antonio, Texas, has been sold to the Pollock Paper and Box Co., a Texas corporation, which took over operations Jan. 2. The Pollock company, with headquarters in Dallas, has branches at Fort Worth, Houston, Waco, Abilene and Longview, Tex.; has its own paper mill in Columbus, O., and operates converting plants in Houston, Dallas, Atlanta, Ga., Birmingham, Ala., Columbus and Middletown, Ohio. Lawrence S. Pollock, president, plans expansion of the newly acquired plant.

Big Marking Roll For St. Helens Mill

The St. Helens Pulp & Paper Co., St. Helens, Ore., has recently received augmentation in the form of a large marking roll, rubber covered by B. F. Goodrich Co., Akron, O., to mark certain grades of fine-line stock. The 18-foot roll, with a diameter of 33 inches, said to be one of the largest ever covered by the rubber company, will (after grooving to secure the number of lines desired per inch) be installed on the No. 2 Fourdrinier of St. Helens' Pulp and Paper Co. This paper machine has a wire width of 202 inches. The roll is now on the mill floor.

The new roll fits into the machine just in front of the 12-foot Yankee dryer, against which it revolves under pressure with the paper between to produce a translucent set of lines plainly apparent against the color of the stock. After this the paper stock goes into the back roll.

Paper so marked is a fancy grade of wrapping paper customarily preferred by drug and other stores desiring some distinction in purchase wrapping, for millinery and notion bags, and for asphalting because of texture differences between obverse and reverse sheet faces.

Donohue Brothers, Ltd. Modernization Program

Twelve grinders at Donohue Brothers, Ltd., pulp mills, Nairn's Falls, Clermont, Que., have been replaced with six late-type Great Northern grinders manufactured by Waterous, Ltd., Brantford, Ont. These are now in use.

Donohue Brothers manufacture newsprint and groundwood pulp. In the last quarter of 1946, during installation of the grinders, groundwood shipments were somewhat reduced, but the newsprint schedule was fully maintained.

A total expenditure of $350,000 is being made in a modernization program expected to bring production of groundwood up to about 225 tons daily.

Orders have been placed for Harland electric drives for the paper mill and for other equipment to be installed during the next two years at an estimated cost of $250,000.

Higher speed production and lower cost of production are objectives of the company.

Howard Smith Improving Mill

An improvement program is now being carried out at the Beauharnois, Que., mill of Howard Smith Paper Mills, Ltd., manufacturers of many grades of fine papers.

The newest type of Barber air dryer has been ordered from Clark-Aiken Co., Lee, Mass., to replace old fashioned machinery. A new Cameron winder for the machine room has also been ordered, and a Bertram beater, to be manufactured by Waterous, Ltd., will be among the new stock production units.

Last year a new 22" suction couch was installed on No. 1 paper machine, and No. 2 machine was also improved to give more drying capacity, the latest design of Bepco electric drive being installed there to give sufficient operation on higher speeds.

Halifax Mill Sold

Halifax Pulp & Paper Co.'s mill, Sheet Harbor, Nova Scotia, including its timber holdings, is reported to have been sold to the Hearst Corporation, New York.

Timber limits, mainly spruce, cover about 200 square miles. The mill's production is estimated at 30,000 tons of groundwood pulp annually. The neighboring property of Canadian International Paper Co. was included in the sale, according to Halifax, N. S., reports.

General Sales Manager

T. A. Hendry is the new general sales manager of Abitibi Power & Paper Co. From 1931 to 1935 he was vice-president in charge of sales for Fraser Companies with headquarters in Montreal and in New York. He later rejoined Mead Sales Co. as vice president. He had been with Mead prior to his services with Fraser Companies.

Ekholms Vacation At Acapulco

Erik Ekholm, general superintendent of Puget Sound Pulp and Timber Co., and Mrs. Ekholm are picking up a sun tan at the West Coast Mexican resort of Acapulco. Erik chose a good winter to go to the Sunny South, as the past several months have seen some "unusually" heavy snows in the Bellingham area.

Dobeckmun Opens New West Coast Plant

Creation of a new West Coast Division, and promotion of two of its leading West Coast men, has been announced by the Dobeckmun Co., converters, printers and laminators of films and foils, with headquarters in Cleveland.

Headquarters of the new West Coast division will be set up at Berkeley, Calif., in Dobeckmun's new 50,000-square-foot plant which is to be in operation about March 15. It will supplant the Dobeckmun plant in nearby Oakland, now operating in space leased from Western Waxed Paper Co.

R. J. Christ, former plant manager at Oakland, was named vice president in charge of West Coast Division operations, it was announced by T. F. Dolan, Dobeckmun's president. Tom E. Bruffy, district sales manager for Southern California, will be sales manager in Berkeley for the West Coast.

Bonds Offered Public

Public offering of $2,500,000 of bonds in what was formerly a privately owned pulp and paper mill—St. John Sulfite, Ltd., which acquired a year ago the woodpulp mill formerly operated by Port Royal Pulp & Paper Co.—was made in eastern Canada in January by an underwriting group headed by F. J. Brennan & Co. The mill is at Fairville, New Brunswick.

It is understood that the company plans important expansion, including acquisition of extensive timberland in New Brunswick and Maine.

Frank J. Lang, Dexter, N. Y., is vice president in charge of production.

Chicago Professional Paper Group Meeting

The Chicago Professional Paper Group meeting on January 20th at the Chicago Bar Association enjoyed a panel discussion on "Getting the most out of Coating Paper Surfaces."

Those participating in the discussion were John Halladay, paper consultant, who spoke on paper coating processes; Wm. A. Kirkpatrick of the Allied Paper Mills, who gave an interesting talk on how coated papers improve the appearance of printing; Frank Egan, I. P. I. Division of Interchemical Corp. whose subject was various types of machines used for coating paper surfaces; and Fred A. Weymouth, I. P. I. Division of Interchemical Corp. who presented the ink maker's viewpoint of the coated paper industry.

Copies of these talks and of the question period which followed may be obtained at a reasonable cost by writing Miss Tadla, care of Container Corp. of America, 10 N. Clark Street, Chicago 1, Ill.

The subject, "Printing Methods and Printing Machine Design" was scheduled for discussion at the Feb. 17th meeting with the following participating in the panel: Paul Twyman, asst. sales manager, Miehle Printing Press & Mfg. Co.; Mr. Reynolds P. Perry, district manager, Harris-Seybold Co., and Mr. Leonard J. Remington, sales manager, Champlain Co., Inc.

Pacific Coast Job Analysis Meetings

Robert S. Boaz, of Personnel Training Service, Seattle, Wash., has been engaged as conference leader for a program of job analysis educational meetings now going on throughout the Pacific Coast pulp and paper industry. This consists of a series of fifteen 12-hour meetings, the first of which was held at Camas, Wash., Jan. 27-28 and the final meeting is scheduled in Tacoma, Wash., for March 13-14, between a representative of the unions on the joint job analysis board, a representative of manufacturers on the joint job analysis board, two management representatives from each mill and two representatives from each local union, as well as Mr. Boaz.

S. W. Grimes, assistant secretary of Pacific Coast Association of Pulp and Paper Manufacturers said these meetings are "for the purposes of giving conversational acquaintance with the fundamental principles and mechanics of job analysis program."

The sessions are the result of a request made by Mr. John Sherman and Mr. Russell Drummond, Vice-Presidents of the two pulp and paper International Unions. The International Unions and the Manufacturers joined in the development and presentation of these educational conferences in the mill towns for the purpose of making available to both labor and management representations a better understanding and knowledge of the fundamental principles and mechanics of their joint job analysis program.

Woods Dept. Manager

E. E. Grainger, formerly with the Ontario department of lands and forests, has been named woods department manager of the Sturgeon Falls development of Abitibi Power & Paper Co.

Little Known Facts About Paper Machines

Little known facts about paper machines:

A train of 100 cars is not unusual for shipping one machine.

Machines over 40 years old are still running — at higher speeds than when they started up.

Seldom are two machines ever built exactly alike.

Some machines have over 100,000 parts.

From one machine, newsprint (19 ft. wide) is made at rate of 350 miles every 24-hour day.

From another light sheets are produced at rate of 460 miles of paper a day.

Another machine in use today makes 600 tons of paper in 24 hours.

These are facts and figures issued by Beloit Iron Works when the recent TAPPI day brought a special train of delegates to Beloit, Wis., from the Milwaukee convention.

A souvenir program listed "milestones" in Beloit's 88 years of production and the latest one it listed—for 1946—is the new all-purpose 246-inch high speed kraft paper machine for West Vriginia Pulp & Paper Co., Charleston, S. C. This machine, it was stated, is expected to set new records for kraft paper grades.

Other recent milestones were the Big Swede glassine machine delivered to Rhinelander Paper Co.; the 216-inch high speed Fourdrinier kraft liner board machine for the Southern Kraft mill at Georgetown, S. C., which is capable of producing the equivalent of its own weight (5 million lbs.) in every four days, and the 177-inch high speed tissue machine for Scott Paper Co., Chester, Pa.

THREE YOUNG EXECS in Portland, Ore., headquarters of Columbia River Pulp & Paper Co. (l. to r.); GEORGE H. McCORD, Acting Purchasing Agent; ROBERT H. NOYES, Jr., Assistant Sales Mgr., and HAROLD YOUEL, General Auditor and Office Mgr.

Mr. McCord served with Patton in Europe in the 95th; was a Captain. His Alma Mater is UCLA. Began working in company's Los Angeles mill in 1930, was PA there and now handles purchasing duties formerly done by retired V-P Theo Osmund.

Mr. Noyes, from ivyed halls of Yale, was Navy Lieut. in charge of an LST in China war zone. Beginning in '36, worked in lab at Vancouver, Wash., mill, then to Salem, Ore., mill and moved to Portland office in '40.

Mr. Youel's navy service included two years on staff of Commandant of Southwest Pacific sub service; was a Lieut. Graduate of U. of So. California, he became accountant in Los Angeles mill in '39. Now has taken over some of Mr. Osmund's duties as well as auditing duties of W. P. Donnelly, who retired last summer.

L. C. CHAUSSU of Chaussu Box Co., San Francisco (second from left), was a recent visitor at Pacific Paperboard Co., Longview, Wash., to participate in Directors' meetings of the company and subsidiaries. An increase in capitalization of the Longview plant from $600,000 to $1,000,000 has been taken up by 20 boxmakers' converting plants including Morris Paper Mills of Chicago, Standard of Los Angeles, etc.

Above (left to right): O. D. Latimer, Assistant Superintendent of Pacific Paperboard; Everett Flood, Vice-President; Mr. Chaussu; C. ,E. Paxton, Traffic Manaaer of the Longview Mill; W. D. Brill, Assistant Superintendent, and E. E. Flood, President of Pacific Paperboard.

Great Lakes Expansion

Great Lakes Paper Co., at Fort William, Ont., already one of Canada's biggest paper manufacturers, is going ahead with a two years' construction program designed to speed up newsprint production to meet steadily rising demand, Hon. Earl Rowe, president, told PULP & PAPER INDUSTRY at his office in Toronto.

First step in the program will be modernization of the groundwood mill and new grinder equipment to handle 4-foot wood lengths is being installed by Waterous, Ltd. There will also be a new boiler unit—make not yet determined—with a view to providing power for a general speed-up.

It is estimated that work now being undertaken by Great Lakes will involve expenditure of about $2,500,000.

Present capacity of the mill is about 120,000 tons of newsprint a year and a 25% increase is sought. In addition, about 48,000 tons of unbleached sulfite pulp will be produced for export. The mill is operating at capacity now.

Reichel President Of American Viscose

Dr. Frank H. Reichel, chairman of American Viscose Corp.'s board of directors and former president of Sylvania Industrial Corp., was recently elected president of American Viscose Corp. He succeeds William C. Appleton, president since 1937, who resigned and became a consultant to the corporation. At the same meeting the board elected William B. Olmstead, Jr., and George M. Allen as vice presidents.

Heads Marathon Research

Leo E. Croy, executive vice president, Marathon Corp., Menasha, Wis., announces appointment of D. W. Davis as director of research for all Marathon food packaging materials and packages, headquarters at Menasha.

Mississippi Group

A. W. Nelson, chief forester for the Flintkote Corp., Meridian, Miss., was elected president of the Mississippi Forestry and Chemurgic Ass'n for 1947. Brooks Toler and T. H. Harris, of Masonite Corp., Laurel, Miss., were elected members of the executive committee.

Timber Market Bulletin

Publication of a bulletin in which owners of forest lands may list timber for sale will be effected by the Georgia Forestry Department, according to J. M. Tinker, state forester.

Six additional counties are expected to join the state-county forest fire protection program by next fall.

Changes at Provincial

E. Lorne Goodall, assistant manager, Provincial Paper Co., Port Arthur, Ont., has succeeded A. G. Pounsford as manager. Mr. Pounsford has been made director of manufacturing for the company. A. G. Scott is Mr. Goodall's assistant.

Fred Breyman Retires

After 28 years with the Zellerbach Co., Fred Breyman, twine department manager, has retired to his ranch at Los Altos, Calif.

On Retirement Committee

Bud Hall, Camas, Wash., has been appointed as a member of the Crown Zellerbach Retirement Plan Committee, filling the vacancy caused by resignation of Sam Runyon, Camas.

Selling Paper By the Problem

Paper Merchants Should Acquaint Themselves With Developments in Manufacturing

By Bernard H. Ross, president of Paper Center, Inc., New York City.

What has happened to the paper salesman? Has he become another wartime casualty?

No, he still exists. But not in the accepted sense of the word. With paper merchants swamped with orders for "any kind" of paper, the role of the paper salesman appears to have taken on the aspect of "order taking."

Postwar plans are rapidly moving from the realm of the future to the exigencies of the present. With the inevitable closing of the gap between supply and demand, we must now look squarely at the real problem not too far ahead—highly competitive selling.

It is not difficult to see that direct contact between the processors of paper (printers, lithographers, packagers, etc.) and the manufacturers of paper would be burdensome and unwieldy for all concerned. Hence the prime function of the paper merchant—to interpret the needs of the user to the manufacturer.

Not only will the progressive paper merchant sell paper by the ream, pound, hundredweight—in addition he will sell by the problem, according to the needs of the ultimate user of the paper. To "fit the paper to the need and not the need to the paper" should be the watchword of the distributor's modernized merchandising program.

The farsighted paper merchant must realize that he cannot maintain sales volume if he remains merely an "order taker." He must understand his customers' overall situations as well as some of his specific problems as they relate to paper. Maintaining close liaison with paper mills and converters, as well as keeping informed of new trends in the graphic arts, the paper merchant will provide in his office a readily accessible clearing house of information.

It is naturally impossible for either the printer or lithographer to devote his entire time to the study of paper and investigation of the latest mill developments. This is now the duty of the alert paper merchant.

To best supplement the activities of the customer's art, engineering and advertising agency staffs, the distributor must, of necessity, work closely with the customer, so that in many cases he will be able to recommend papers which are superior to other materials used, or demonstrate the advantages of using paper in combination with such other materials. For the paper merchant to be thoroughly competent in this phase of his job, he must naturally know the potentials of the mills he represents, with particular regard to their ability to produce new items without drastic change in their normal operation.

BERNARD H. ROSS, president, The Paper Center, Inc., 18 John Street, New York City. Formerly Sales Promotion Manager of the Milton Paper Co., Inc., a position he held seven years, Mr. Ross has been in the paper business 22 years.

One of the most important paper using industries—packaging—did not receive the attention it merited from merchants in the past. Here is a field that can be exploited readily and to the mutual benefit of all concerned . . . mill, merchant, packager, converter.

In this field as in others, the paper merchant must be the contact between user and mill. The potentialities, however, are greater here than in most other instances. Here too, the merchant must acquaint himself with all the principles of packaging, including design and equipment. The problems which arise in this industry are in most cases greater than those in the production of papers for other graphic arts uses. But the same principles of decorative quality, functionalism, price and practicability must be considered.

Working directly with the mills, the distributor familiarizes himself with their promotional and sales programs, translating them on his own level and augmenting them wherever necessary. In providing paper for his customers, thorough analysis of customer needs is axiomatic. This includes determination of aims, objectives and the eventual market of the particular item, together with evaluation of the relative importances of quality, durability, adaptability and cost. Then the basic factors of size, weight, color, finish and other mechanical details may be assimilated into the pattern to determine the paper which will most exactly meet the user's requirements. In the event the paper desired cannot be supplied from existing lines, and provided that the quantities involved justify it, the item should then be created by the merchant and ordered for production from the mill. In short, the paper merchant must now create the paper for the need, not the need for the paper alone.

Many obligations to the paper manufacturer are inherent in the distributor's activities. These include not only constant and vigorous merchandising and selling of the product, but also what might well be termed "missionary work." Operating on the immediate scene of activity, the alert merchant is often able to foresee trends, realize new or expanded uses for the product, gauge user and consumer reaction, and visualize the possibility for the adaptation of new paper items. These items of information, invaluable to the mill, should be relayed with the proper background notes, and will serve to increase sales volume. In addition to serving as an information center by carefully coordinating his program with that of the manufacturer, the merchant assumes the responsibility of becoming an actual, active source of information for the manufacturer.

The progressive merchant, adhering to the above principles, will not only be serving both mill and user, but will increase his own immediate and future sales.

EXPERIENCES WITH SOLDIUM ALUMINATE IN PAPERMAKING—A Shibley Contest Paper

By Paul E. Barr

Grays Harbor Div., Rayonier Incorporated

(This paper was entered in the 1946-1947 Shibley contest for young mill employes on the Pacific Coast at the TAPPI meeting in Longview, Wash., Jan. 14, 1946)

The use of sodium aluminate as a rosin size precipitant in the engine sizing method of paper making is not new, having first been introduced to the paper industry about 1933. In the engine sizing method of paper manufacture, the size is precipitated on the fibers by the addition of a precipitating agent to the stock in the beaters. Normally this precipitating agent is added to the beater, either as a powder or in solution, after all the furnish such as clay, rosin size milk and other chemicals have been added and thoroughly mixed with the stock. Although several other precipitants have been used, generally paper makers alum is used. The alum, or other precipitating agent causes precipitation of the rosin emulsion on the fibers, together with by-products such as aluminum hydrate. The sizing which is obtained as a result of this procedure is usually explained by either one of two different theories. One theory assumes that the rosin and the precipitant react to form insoluble aluminum resinate which deposits on the fibers and when dried results in a sized paper. The other theory assumes that the sulfuric acid formed by the hydrolysis of the aluminum sulfate in solution precipitates the rosin, and the colloidal alumina acts as a cementing material between the precipitated rosin and the fibers. Whichever theory is correct, it is a well known fact that when alum is used as the precipitant the presence of sufficient alumina is necessary for good engine sizing.

When aluminum sulfate is used as the precipitant it hydrolyses in solution to form hydrated alumina and sulfuric acid. The presence of sulfuric acid results in a solution which is slightly acid and therefore has a low pH. Sodium aluminate, on the other hand, hydrolyses in solution to form hydrated alumina and sodium hydroxide. The sodium hydroxide formed results in a slightly basic solution which has a relatively high pH. Because of this fact, when aluminum sulfate is used alone as a precipitant the resulting stock and associated waters are quite low in pH, a situation which is highly undesirable. This low pH condition is undesirable for several reasons. Probably the most important is the fact that the resulting paper is not very permanent; paper with a pH below 4.5 is much less stable than paper with a pH above 4.5. Thus the retention of the physical qualities of paper is markedly decreased as the pH falls below 4.5, which is the government standard minimum pH for white paper. In addition to the effects on the physical properties of the paper, low pH is believed to cause more deterioration on printing equipment than higher pH paper. Low pH conditions also result in excessive corrosion and deterioration of all equipment, such as beaters, jordans, pumps, wires, felts and so on. If aluminum sulfate is used alone, as is normally the case in engine sizing, the only way that the resulting pH can be raised, without adding an alkaline agent, is to lower the amount of alum added. This invariably leads to poor sizing, presumably due to an absence of the necessary alumina. However, by using a combination of aluminum sulfate and sodium aluminate a control of the amount of alumina present, the pH, and the total acidity can be maintained.

This paper deals with actual mill experience in making high grade sulfite papers at Rayonier Incorporated Grays Harbor Division, Hoquiam, Wash. Since the paper mill started in 1929, with the exception of experimental periods, the normal procedure has been to use alum alone as a precipitant. This resulted in a low pH condition from the beater clear through to the finished paper. With the use of alum alone, in order to obtain good sizing it has been necessary to keep the tray water pH at 3.9 to 4.1; this acid system produced paper which had an average pH of about 3.8. Since it was recognized that this acid condition was not conducive to good machine conditions and the production of the best paper, in addition to the other disadvantages of an acid system already mentioned, the possibility of using sodium aluminate was suggested as early as 1933. Alum-sodium aluminate combinations were tried on experimental runs in the paper mill on several occasions from 1933 to 1939, using various combinations of alum and sodium aluminate. During all these experimental runs both the alum and sodium aluminate were added to the beater. Numerous alum-sodium aluminate combinations were tried but very little of the data obtained indicated that the sodium aluminate improved the size quality and in most instances the sizing was definitely poorer as the pH of the beater and machine tray water was raised.

In June, 1946, sodium aluminate in combination with alum as precipitant was again tried. This time instead of adding the sodium aluminate to the beater as had previously been done, it was decided to add it in solution to the sand box at the point where the stock slurry from the fan pump was introduced into the sand box. This change in place of addition was made on the assumption that possibly the poor sizing results obtained on previous sodium aluminate trials were due to the breaking up of the flocculent precipitate of hydrated alumina, which was formed in the beaters, as the stock passed through the various chests, pumps and jordans on its subsequent flow from the beaters to the machine. It was thought that by adding the sodium aluminate after these positions of violent agitation the hydrated alumina floc formed might be more conducive to good sizing.

To assist in evaluating results and eliminate as many of the variables always present in paper manufacture as possible, all preliminary experiments were conducted during runs of a single grade of paper. An attempt was also made to obtain as many alum-sodium aluminate combinations in as short a time as practical to further reduce the effect of variation in stock and machine conditions. These combinations varied from a maximum combination per ton of paper of 55 pounds of alum (the normal alum usage when alum was used alone) and five pounds of sodium aluminate, through intermediate combinations to a minimum combination of 18 pounds of alum and one and one-half pounds of sodium aluminate. As a further control of variables the rosin size furnish was left constant throughout most of the experimental trials, being set at that amount determined before the trials, which gave an average size quality with the normal alum usage alone.

At the present time an alum-sodium aluminate combination is being used on all grades and colors of sized paper being manufactured. In this combination, alum is added in solution to the beaters at the rate of 18 pounds per ton of paper and the sodium aluminate is added in solution through a rotameter, at a constant rate of flow, to the sand box at the rate of one and one-half to three pounds per ton of paper. With this combination machine tray water pH's have been obtained from 4.4 to 6.8 by leaving the alum constant and varying the sodium aluminate addition. For reasons which are explained later on, the pH range sought for is from 5.0 to 6.0. At this pH range, paper with a pH of from 4.5 to 5.0 is being made which possesses other superior qualities as compared with paper produced in the past with a pH of 3.8 to 4.0.

The phenomena noted during the experimental runs and the results which have been obtained under constant mill operation since the completion of the experimental work are discussed separately.

Size Quality

During all the experimental runs with sodium aluminate being added to the sand box, the size quality, as determined by control tests, remained about the same as it had been with alum alone until the machine tray water pH was raised to about 5.0 by cutting the amount of alum and sodium aluminate to the minimum mentioned above. At this point the size quality definitely improved. It also appeared that while the presence of alumina is necessary for proper sizing there was an optimum minimum to maximum range of the amount which should be present in the pH range of 5 to 6. Size quality was determined by the pen and ink method, using both Sanfords Standard Ink and Sanfords Standard Ink containing 5% acetic acid. The size quality was divided into four categories, "Good," "Tendency to Feather," "Feather" and "Poor." The total amount of all sized papers graded as "Good" since the use of the sodium aluminate has increased by about 10% as compared with the amount graded "Good" over a period of equal duration just previous, when alum alone was used. This 10% increase in size quality has also been accomplished with the use of slightly less size than was used for the period in which only alum was used. It is possible, of course, that some of this increase was due to other factors, but at least a large part of it is attributable to the use of the sodium aluminate and the resulting increased pH. Present experience indicates that, with the use of the alum-sodium aluminate combination, improved sizing can be obtained at a pH of from 5.0 to 6.0+ as compared with the sizing obtained at a pH of 3.9 to 4.1, with the additional improvements of better paper and less corrosive machine conditions. The experience thus far with paper made at pH's much above 6.0 is not very complete, however what data are available

A New Industry Comes to America

In the late 1860's, with newer, better, faster machines, and with plentiful wood pulp in prospect to feed them, the paper industry boomed. Still the essential papermakers' felts were largely imported from England. Pioneers set about to supply the urgent need—American-made felts for America's multiplying paper mills.

Among the first of the American felt-weaving mills was one now known as F. C. Huyck & Sons. Established in 1870 in the village of Rensselaerville, New York, it has grown to be the largest manufacturer of papermakers' felts in the world. It has cooperated closely with the papermakers, designing and producing felts to run at greater speeds, remove water in greater volume, provide new finishes for new types of paper. This is its continuing purpose: to meet the most exacting needs of the vital paper industry.

The dramatic story of paper is told in the sound-and-color film, "Paper— Pacemaker of Progress," and in a book under the same title. Both are presented by F. C. Huyck & Sons as a tribute to the Paper Industry. The book will be sent free upon request.

KENWOOD WOOL PRODUCTS

HUYCK *Felts*

F. C. HUYCK & SONS • *Kenwood Mills* • ALBANY, NEW YORK

Pacific Coast Representative: Pacific Coast Supply Co., Public Service Bldg., Portland, Ore.; 343 Sansome St., San Francisco, Calif.

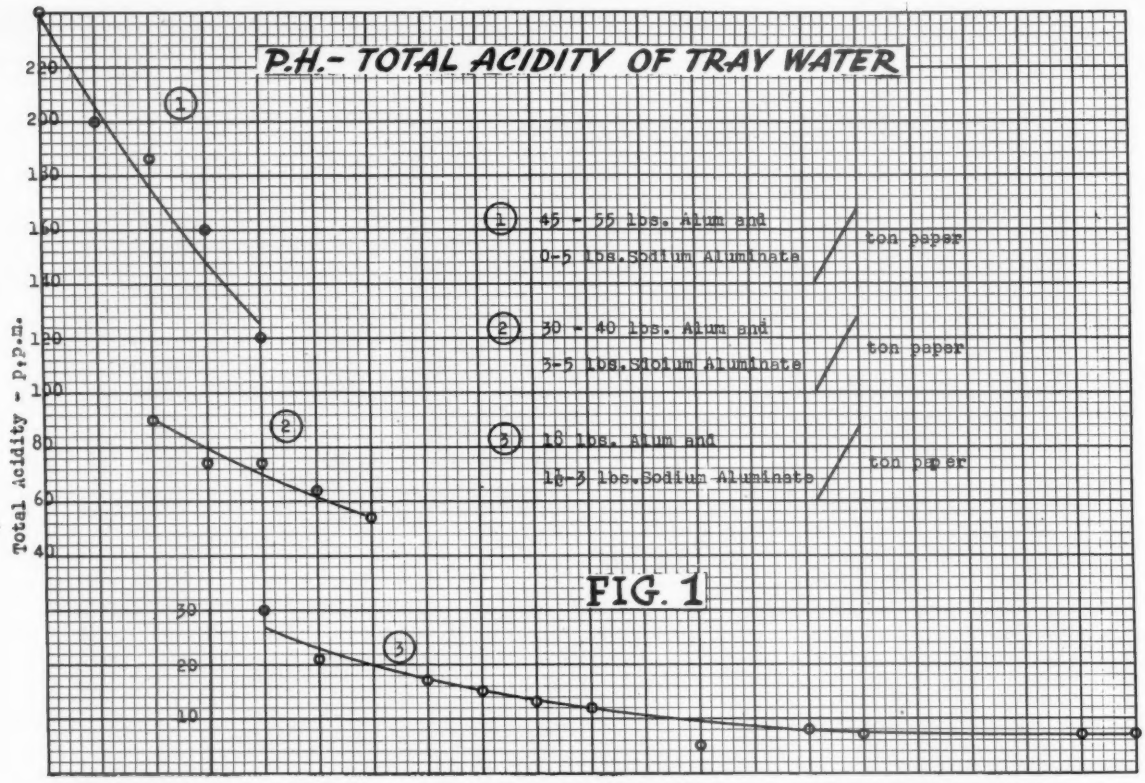

P.H.- TOTAL ACIDITY OF TRAY WATER
Total Acidity - p.p.m.
220
200
180
160
140
120
100
80
60
40
30
20
10
1
2
3
1 45 - 55 lbs. Alum and 0-5 lbs. Sodium Aluminate / ton paper
2 30 - 40 lbs. Alum and 3-5 lbs. Sodium Aluminate / ton paper
3 18 lbs. Alum and 1½-3 lbs. Sodium Aluminate / ton paper

FIG. 1

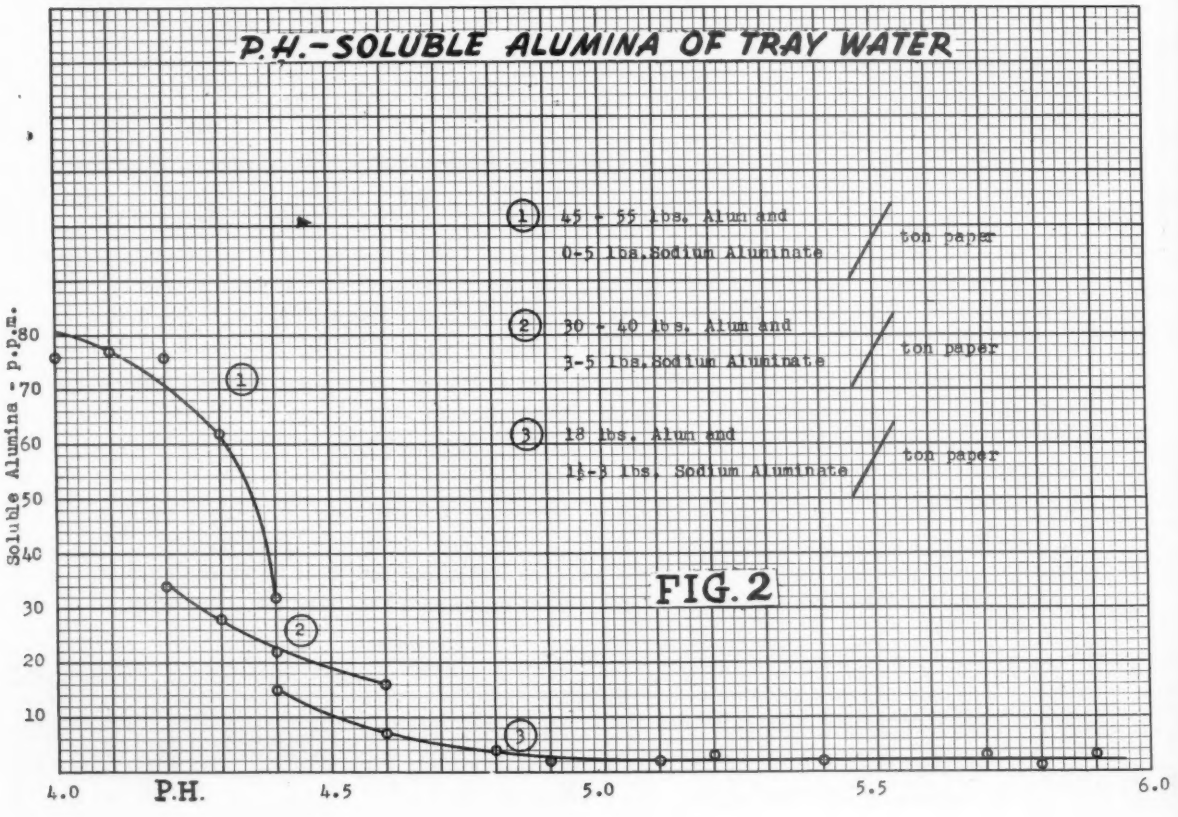

P.H.-SOLUBLE ALUMINA OF TRAY WATER
Soluble Alumina - p.p.m.
80
70
60
50
40
30
20
10
1
2
3
1 45 - 55 lbs. Alum and 0-5 lbs. Sodium Aluminate / ton paper
2 30 - 40 lbs. Alum and 3-5 lbs. Sodium Aluminate / ton paper
3 18 lbs. Alum and 1½-3 lbs. Sodium Aluminate / ton paper
4.0
P.H.
4.5
5.0
5.5
6.0

FIG. 2

indicate that at a pH of 6.5 or higher the size quality definitely decreases.

pH and Total Acidity

Figure 1 shows the relationship between pH and total acidity of the paper machine tray water when different amounts of alum were used in the beater furnish, and the pH of the tray water regulated by varying the amount of sodium aluminate added at the sand box. Total acidity as used here is expressed as that amount of calcium carbonate in parts per million required to neutralize all the acid present.

Curve (1) shows the pH-total acid relationship when an addition of 45-55 pounds of alum per ton of paper was used and the sodium aluminate varied from zero to five pounds per ton of paper to regulate the pH.

Curve (2) shows the pH-total acid relationship when 30-40 pounds of alum per ton of paper was used and the sodium aluminate varied from three to five pounds per ton of paper to regulate the pH.

Curve (3) shows the pH-total acid relationship when an addition of 18 pounds of alum per ton of paper was used and the sodium aluminate varied from one and one-half to three pounds per ton of paper to regulate the pH.

As can be seen from these three curves the total acid present is not so much a function of the pH of the tray water but more a function of the amounts of alum and sodium aluminate used to obtain that pH. Thus it is possible to have tray water of widely different total acid content at the same pH. For example, from the curves it is noted that at a pH of 4.4 total acid values of 120, 75, and 30 parts per million were obtained when varying amounts of alum and sodium aluminate were used. This condition is apparently due to buffering action.

pH and Soluble Alumina

Figure 2 shows the relationship between pH and the soluble alumina content (This is actually the total soluble R_2O_3 as determined gravimetrically) of the paper machine tray water when different amounts of alum were used and the pH regulated with sodium aluminate. As can be seen from these curves the soluble alumina content of tray water is not dependent so much on the actual pH but more on the amounts of precipitants used to obtain the pH. It will be noted that this was also true in the pH-total acidity relationship discussed earlier. It is recognized that the shape of curve (1) Figure 2 does not conform to the shape of curves (2) and (3) as would be expected. However, since all curves were plotted entirely from the data obtained there appears to be no present explanation for this discrepancy.

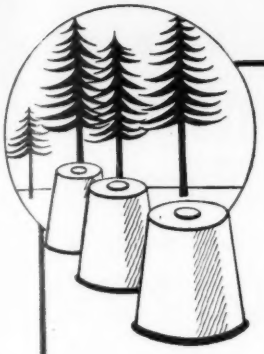
As mentioned earlier, experience has shown that when the sodium aluminate is added in solution to the sand box, the sizing apparently does not change and definitely does not improve, until a pH of about 5.0 is reached. At a pH of about 5.0, sizing very definitely improves and stays improved until a pH somewhere above 6.0 is reached.

This range of 5.0 to 6.0 at which good sizing is obtained is interesting when examined on the curves in Figures 1 and 2. As can be seen, both the total acidity and soluble alumina content of the tray water have decreased as the pH was raised to about 5.0. At this pH, very low values of both total acidity and soluble alumina are obtained and appear to maintain a fairly constant minimum for the entire pH range 5.0 to 6.0.

Since experience shows that the sizing apparently does not improve until a pH of about 5.0 is reached, through the use of relatively small amounts of alum and sodium aluminate, and since at this pH of 5.0 both the total acidity and soluble alumina reach a low value which is an apparent minimum it is not illogical to assume that very possibly the good sizing obtained throughout the pH range of 5.0 to 6.0+ could be largely due to optimum concentrations of total acidity and alumina in the system as indicated by the tray water. Also since alumium is amphoteric, future data might disclose that the soluble alumina increases at pH's higher than 6.5 and if this is true might be a partial explanation, at least, of the fact that size quality decreased as the pH was raised above 6.5. Assuming that this is true then it becomes evident that pH measurement as a means of sizing control is not sufficient since it is also necessary to have low total acidity and soluble alumina present in the tray water, a condition which can only be arrived at by adjusting the pH with the correct amounts of alum and sodium aluminate.

Furnish Retention

Since the alum-sodium aluminate combination has been used it has been possible to reduce the amount of filler added to the beater and still obtain the same opacity of the paper as was obtained in the past. This reduction in filler has amounted to about 15%. Data obtained show that as the soluble alumina content of the tray water decreases the alumina content of the



IN THE PUBLIC INTEREST

Aided by consistent improvement in the wood cellulose which goes into its manufacture, rayon has greatly broadened its sphere of usefulness. Today there is hardly an individual who does not use rayon in everyday living, and this use is increasing daily.

Supplying a raw material so closely related to the public need imposes also a public responsibility. Rayonier, as the major producer of wood cellulose for the rayon industry, is alert to the challenge. Through extensive research, it seeks further improvement in existing wood cellulose, and also the development of new types for special purposes — often before a demand exists.

Prior to the war, for example, wood cellulose had not been used in making acetate rayon, although it had long been utilized for viscose rayon. In 1942 however, when the acetate rayon industry was faced with a shortage of raw material, Rayonier was ready with *Rayaceta* — a special wood cellulose for acetylation — which it had developed several years earlier.

The increased use of wood cellulose as the basic raw material for rayon, may be attributed in large measure to the steady improvements in quality — the development of special types in anticipation of a need — and the ability to custom-make this essential raw material for an industry which shows no signs of having reached the saturation point. In this manner, we are meeting our responsibilities "in the public interest."

RAYONIER
INCORPORATED

Sales and Executive Offices: 122 East 42nd Street, New York 17, N.Y.
Mills: Hoquiam, Port Angeles and Shelton, Wash., and Fernandina, Fla.

paper increases. Also the ash content of the paper is about the same with 15% less filler being used as before the filler reduction. This indicates the possibility that, in addition to the increased alumina content ofthe paper, there is better clay retention obtained through the use of the sodium aluminate.

Production Costs

Considerable saving in the cost of production per pound of paper is effected by the use of the alum-sodium aluninate combination as compared with the use of alum alone. The first and greatest actual cost saving results from the decrease in the alum requirement per ton of paper from 55 pounds to 18 pounds with only one and one-half to three pounds sodium aluminate required in substitution. Still further savings are made possible through being able to obtain improved quality of sizing with the use of slightly less rosin size, and through being able to obtain the same opacity with the use of considerable less filler. Since the alum-sodium aluminate combination has been used, an actual saving of more than 45 cents per ton has been possible from the decrease in furnish alone. For a 90-ton paper mill this represents a saving of about 40 dollars per day.

In addition to these savings, which can definitely be calculated, there are a great many savings which, while it is recognized that they exist, are more or less intangible and cannot be accurately measured. These consist of obtaining longer life of equipment such as pumps, wires, felts, etc., due to corrosion reduction, and the resulting more stable higher pH paper produced.

Since the use of sodium aluminate, foaming on the machine which was noticed frequently when only alum was used, especially when some colored papers were being made, thus far has not occurred. It is felt that this lack of foaming is due to changes in machine conditions resulting from the use of sodium aluminate.

The experiences thus far with the use of sodium aluminate as a partial substitute for alum under actual mill production have been extremely interesting. The successful production of better paper in itself would have been highly gratifying even if the cost of production had not decreased or even if the cost had actually increased. The additional fact that this better paper has also been made under conditions which result in an appreciable cost reduction is doubly gratifying.

Considerable work has been done up to the present time on the use of sodium aluminate as a co-precipitant with alum and a fair degree of success has been attained. The results obtained, however, point to still further problems to be investigated in connection with the use of sodium aluminate in the manufacture of better grade paper.

Synthetics Prove Superiority In Water Test

Animal glues fail while American Cyanamid Co.'s URAC resin adhesive 185 provides a perfectly satisfactory bond, when both adhesives are subjected to accelerated water tests.

Tennis racquet frames were chosen as the medium. Modern technique is to laminate them from thin strips of veneer.

Animal glue and URAC 185 were used for laminating and the racquets were soaked for 105 min. in water at 160° F. The former completely delaminated; the latter did not at all.

New Groundwood Plastic

A new low-cost wood fiber base plastic has been developed by U. S. Gypsum Co. and brought out under the trade name Duron. Composed essentially of groundwood fibers and plasticizers, it can be formed at high temperature and pressure into a wide variety of shapes.

Its greatest market seems to be in toys, automotive parts,, advertising displays, furniture, wall tile and interior finishes.

Westinghouse Manager

H. Norman Miller, electrical engineering graduate of Oregon State College and a member of the industrial sales staff of the Westinghouse Electric Corp. for 19 years, has been named manager for the company in the Portland, Ore., area. Announcement of Mr. Miller's appointment was made by Chas. A. Dostal of San Francisco, vice president in charge of the company's Pacific Coast District.

Moore Represents Warren Pumps

Warren Steam Pump Co., Inc., Warren, Mass., announce appointment of Gil Moore, 4031 Goodwin Ave., Los Angeles, 26, Calif., as representative for their industrial line of Warren Pumps, reciprocating and centrifugal types. Mr. Moore's territory embraces Southern California south of and including the counties of San Luis Obispo, Kern and San Bernardino, the state of Arizona, and Clark county in Nevada.

New Towmotor Lift Truck Accessory

A new lift truck accessory, designed for the paper industry, but suitable for use in any handling operation requiring movement of cylindrical loads in either vertical or horizontal position has been announced by Towmotor Corp., Cleveland, manufacturers of industrial lift trucks, tractors and accessories. The Upender, as this latest Towmotor accessory is called, is designed to up turn or "up-end" rolls of paper from vertical to horizontal position, or vice versa. The Upender provides speedy, safe carrying and stacking of rolls in whatever position is desired, with a minimum of effort. The possibility of damage to rolls or ot injury to employees is minimized by the use of the Upender in place of hand methods of handling.

Du Pont Dyestuffs Chemicals Office in Atlanta

The Du Pont Company announced opening of a new sales office by the Organic Chemicals Department at 1206 Spring St., Atlanta, Ga. The department is composed of the dyestuffs, fine chemicals, rubber chemicals, and petroleum divisions. The new office will distribute and service the products of the dyestuffs and fine chemicals divisions.

Need for increased facilities in the South is due to growth of paper and other industries in this area.

Up to the present, all southern sales have been handled from Charlotte, N. C., which now will concentrate activities in North and South Carolina, while the rest of the southern district east of Arizona will be handled from Atlanta.

D. C. Newman, who has been manager of the Charlotte office, will continue as sales manager of the entire southern district with Charlotte headquarters. A. B. Owens, formerly sales development manager of the dyestuffs division in Wilmington, will be Atlanta manager. R. D. Sloan will be manager in Charlotte.

Beaton and Wilson To Manage Mills

New executive appointments at the Brompton Pulp & Paper Co. include Neville Beaton as resident manager, Red Rock (Ont.) division; R. C. Moody as sales manager and E. P. Wilson as resident manager, East Angus (Que.) division.

HINTS AND OBSERVATIONS

The following literary effort, entitled "Hints and Observations," appeared on the wall of the men's locker room in the power plant of Weyerhaueser Timber Co.'s Everett, Wash., pulp mill. The author is one Peter Krogh, mill janitor, a lay minister in his off hours.

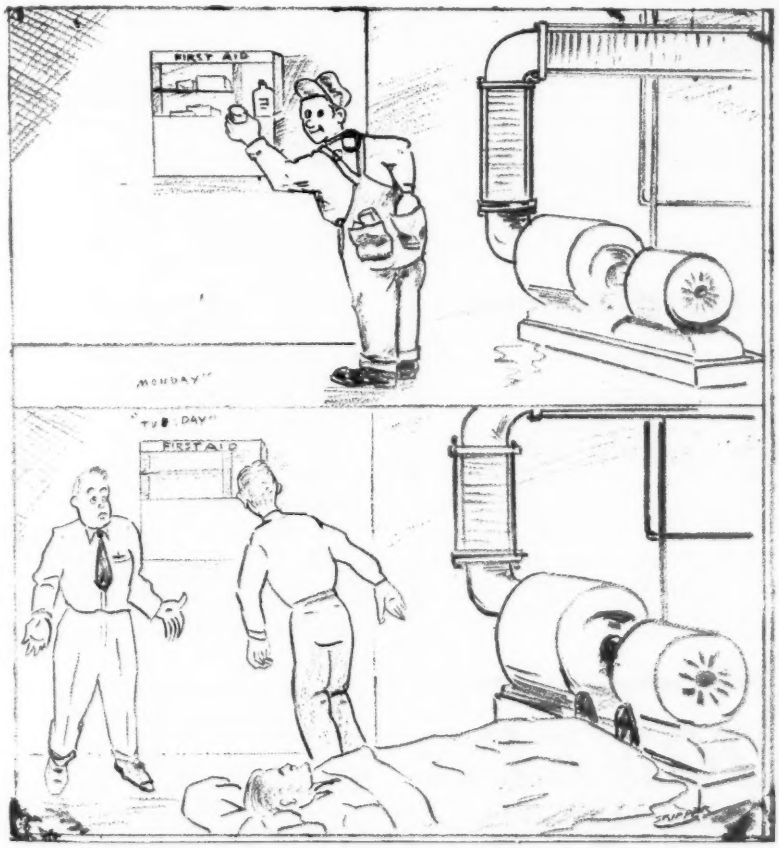
"To men that have had experience with such relatively simple things as boilers, dynamos, radar, subs, big-calibered guns, field pieces, etc., a modern lavatory must of necessity be a place of baffling bewilderment. This is a well-meant attempt to simplify your problems.

"Every article in this lavatory has one specific use and usually only one. That thing under the large window may be called a wash bowl. Its primary purpose is to facilitate the cleansing of hands and face. However, it can also be used to wash overalls, sox and underthings; dainty or otherwise. It is a poor place to deposit your used gum, razor blades, etc., for reasons that are obvious to all.

"The closet-like recesses are not really closets or boot depositories but places where men completely unclad enter, turn on a satisfying mixture of hot and cold water, this resulting in a shower bath. A shower bath is a most exhilirating experience leaving the bather with a glow of well-being which suffuses and permeates the whole being. But imagine the difficulty were one to take a shower straddling two or three pairs of boots and half a haberdashery fluttering around his head. And think of the blow to his morale on coming out and finding a circle of flotsam upon the upper reaches of his lower extremities, with two or three wads of gum firmly embedded in his tender insteps and half a dozen snipes between his toes.

"This leaves the problem of refuse as yet unsolved. It is easy to understand the excruciating agony this involves. However, science and the can-do and know-how of American achievement has come to the rescue. Between the wash basin and the showers is an open receptacle having fluted sides, a frieze-like indentation on top of a dadolike ornamentation on the bottom. A number of resolute-willed men of strong character have been observed to throw things into it. This is known as a garbage can. The matter of boots will be the subject of another paper."

There is no objection if other mills want to clip out the above dissertation and post it in a suitable place.



"SAFETY FIRST" DOESN'T MEAN "KEEP ALL SAFETY SUPPLIES TO YOURSELF" OR "FIRST COME, FIRST SERVED"—according to this cartoon sent us from the Fernandina, Fla., mill of Rayonier Incorporated.

This exclusive photograph obtained from wild Lolo tribesmen of deepest China in exchange for a chow mein recipe and free subscription to PULP & PAPER shows a well known American sulfite superintendent consorting with four prominent citizens of the Orient. It will be recalled that the U. S. Government recently asked for information on how to build and operate kraft pulp mills for the Chinese. We are not sure whether the American sulfite superintendent made a personal visit to the Far East to give his friends the right answers to that one; or whether he has just joined a Mah-jongg club.

Left to right: One Lung Gone; Pu Lee; Hop Far Sin; Jack Savage, Crown Zee, Camas, Wash.; and Chin Low Hung.

This Pulp Product Is Better Than Original

Artificial cellulose sponges are proving superior to the customary sea sponges in many ways, according to British Plastics. Artificial sponges are being made by the viscose method, which is an important user of wood pulp.

The artificial sponge, it is claimed, has twice the water absorbency, can wipe drier because of pore-structure, lasts longer with higher resistance to warm soda and soap solutions, is less likely to harbor micro organisms, and is safer to use because the sea sponges always have some traces of sand or impurities which may scratch surfaces.

William Hart Named General Personnel Supvr.

William Hart returned to Crown Zellerbach Corp. after six years in the army, and has joined the industrial relations department as general personnel supervisor of Crown Z., with headquarters in San Francisco.

Mr. Hart began employment with Crown Z at Camas in 1930, and was in the Camas order department when called up as a reserve army officer in 1940. Trained in military manpower procurement, he was assigned to Selective Service headquarters Washington, D. C., and became assistant deputy director. The Harts and three daughters, ages 7, 6 and 5, reside in Palo Alto.

Loddengaard on Board Of United Paperboard Co.

At the annual meeting of United Paperboard Co., P. M. Loddengaard, vice president in charge of operations, was elected a director.

All of the present officers were re-elected. Georg J. Walters was appointed assistant secretary and assistant treasurer.

New Brazilian Lab

The Paper Industry Syndicate of the State of Sao Paulo, Brazil, announced in a letter to this magazine that it has established a new pulp and paper laboratory. The syndicate's address is 359 Rua Oliveira Alves, Sao Paulo, Ipiranga, Brazil.

Irrigation With Strawboard Waste in Australia

For Stream Improvement bulletin publishes a report that two strawboard mills in Australia are disposing of their effluent by employing it for irrigation of agricultural land.

A farmer operating a 250-acre dairy farm adjacent to one of the mills using a single furrow hill plough constructed a system of irrigation channels on his property and equipped them with control gates. The mill effluent was first settled, then distributed to the pastures through the irrigation system. Between one-quarter and one-half a million gallons of waste containing 6,000 p.p.m. of dissolved solids and 600 p.p.m. of lime (CaO) was disposed of daily in this manner. The farmer claims vast improvement in the fertility of his land resulting from several years of this practice, the carrying capacity of the pastures having been increased from 45 to 500 cows.

Effluent from the other mill is used to irrigate a large acreage utilized for growing flax. No claims are made in regard to beneficial effects on the crop other than that obtained by use of the water. However, no detrimental effects of the chemicals present in the waste were noted. Both mills cook cereal straw primarily with lime and the effluents are not caustic.

It would be interesting to know the character and chemical composition of the soil of the dairy farm before and after irrigation with mill waste.

Public Financing Of Stone Container Corp.

Financing plans by Stone Container Corp announced by Norman H. Stone, president, involve 300,000 shares of common stock—200,000 for company account and 100,000 for the Stone family and trusts, with public offering made by Hornblower & Weeks. Proceeds will retire a bank loan and debentures and leave the company free of debt and with 800,000 outstanding shares. The Stone family and trusts will retain 500,000.

The company operates container plants in Chicago and Philadelphia.

Paperboard mills at Coshocton, Ohio, and Franklin, Ohio, were acquired earlier this year.

Bolger Represents Huyck on Coast

Personnel changes affecting two organizations have been announced jointly by F. C. Huyck & Sons and Pacific Coast Supply Co. Mr. H. J. Bolger, formerly in charge of the California territory for Pacific Coast Supply Co., is joining the Huyck organization, with his headquarters in the East.

Mr. Bolger, after joining Huyck and spending some time with them at the factory, will continue to call on paper and board mils in California, extending his activities to cover pulp, paper and board mills in Oregon and Washington. He will work with D. C. Jordan in supplementing the work of the Pacific Coast Supply Co. to provide closest possible contact between the plant of F. C. Huyck & Sons and mills on the Pacific Coast.

Will Make Chips

A Carthage chipper is being installed at the Canadian White Pine Co., one of the H. R. MacMillan sawmills on the Fraser River near New Westminster as a part of the company's program to make economic use of fir and hemlock refuse from the mill in the manufacture of pulp and paper.

Clifford Crispin recently joined the MacMillan organization as manager of the by-products division, and it is understood that this will market the chips to various coast paper mills.

Hedbring of United Paperboard, Was in Tacoma

O. E. S. Hedbring, who was recently appointed assistant to the vice president in charge of production of United Paperboard Co., Thomson, N. Y., was born in Varnamo, Smaland, Sweden, is a graduate of the University of Washington and for a time was employed at the Tacoma Union Bag mill now owned by St. Regis.

C. A. Mulqueeny is resident manager for United Paperboard at Thomson which is the manufacturing mill of the organization. Another plant at nearby Victory Mills is devoted chiefly to the converting of material from the Thomson mill.

New Desensitizing Gum

A new desensitizing gum is one of most recent products of wood cellulose.

The research department of the Lithographic Technical Foundation, in cooperation with Armour Research Foundation, has been experimenting with this cellulose gum and after extensive tests, it has proved superior to gum arabic in desensitizing power. In addition, it has many other practical advantages.

Cellulose gum is one name for the sodium salt of carboxy-methylcellulose. It is manufactured by Dow Chemical Co. under the trade name of "Carboxymethocel-S", and by Hercules Powder Co. under the name of "CMC". It is manufactured from cotton linters as well as wood.

Publishes New Book On Tree Farming

Crown Zellerbach Corp., 343 Sansome St., San Francisco, operating eight tree farms over 500,000 acres in the Pacific Northwest, has published an illustrated book entitled "Growing Paper on Tree Farms."

Among other information in the book, it states that if placed in a single strip one mile wide, these timberlands would reach from Seattle, Wash., to San Francisco, Calif., a distance of about 900 miles.

The book concludes that tree farming is the best evidence a company can offer (1) employes and (2) communities that timber will be continuously available for plant operation and continuous employment.

General Electric Delays Expansion in South

The sharp rise in construction costs, along with other factors, has delayed indefinitely any plans of the General Electric Co. for erecting major new installations in the South, a high official of the company said.

E. O. Shreve, vice president of General Electric, said "We have had our eyes on Georgia and the South for a long time, as a fast-developing region for industrial expansion."

At Port Alberni Long Ago

Long before most pulp and paper men on this coast can remember, a pulp mill was in operation at Port Alberni on the west coast of Vancouver Island. The mill was owned by Captain Ed Stamp, pioneer shipping man and industrialist, and it was erected in 1860. The venture, however, was short-lived.

The only evidence of this old mill now in existence consists of seven stone grinding wheels originally imported from England. It is now proposed to use the wheels as a commemoration of early industry on the west coast.

Today, 86 years after the Stamp mill was built, a new sulfate mill to be operated by Bloedel, Stewart & Welch, Ltd., is being built in the Port Alberni area.

BMT Credit Manager Dies

Walter E. Jackson, credit manager of the San Francisco division of Blake, Moffitt & Towne, Pacific Coast paper distributors, died Jan. 16 in San Francisco after an illness of several weeks. He was 63.

Appointed to succeed him is Edward P. Cohan, his assistant for the past two years.

Lovegren Joins Empire Box Corp.

Frank J. Lovegren, of Spokane, Wash., has moved with Mrs. Lovegren to Stroudsburg, Pa., where he will join the staff of the Empire Box Corp.

Mr. Lovegren was in the naval service during the war and before and since was technical director at Inland Empire Paper Co., Spokane.

Buys Foreign Newsprint On Cost-Plus Basis

For the next 10 years the entire output of the Holmen-Hellefos paper mills in Oslo, Norway—around 20,000 long tons a year at a cost of $2-3,000,000—will go to the Los Angeles Daily News, Los Angeles Times, Oakland Tribune and the Pacific Press in Los Angeles, one of the biggest U. S. job-printing plants. The deal was made on a cost-plus basis.

Western Gear Handles Cone Drive Gears

Western Gear Works and Pacific Gear & Tool Works announce that cone-drive gears and reducers are now available to Pacific Coast industry through a recent arrangement with the Michigan Tool Co. Cone-Drive Gear Division.

Cone-drive gearing has several times had the load capacity of worm gearing of equal size and ratio, due to large tooth contact per tooth and more teeth in contact. Smaller gears carry more load.

Penn Salt Names Manufacturing Manager

Appointment of Walker Penfield as manager of manufacturing of the Pennsylvania Salt Manufacturing Co. was announced recently by Y. F. Hardcastle, vice president in charge of manufacturing.

Mr. Penfield formerly was works manager, a position discontinued in a reorganization of Pennsalt's Manufacturing Department. The reorganization was necessary because of the increase in volume of production and number of new Pennsalt products, Mr. Hardcastle said.

New Type Board Box For Shipping Shrimps

The shipping of shrimp in insulated cardboard boxes without ice, under a new process, is expected to result in expansion of seafood industries for Biloxi and the Mississippi coast.

Ralph Duncan, head of a newly formed company at Biloxi, Miss., says the new process has been developed in recent experiments with industrial firms, airlines and university facilities.

A successful test was made with a shipment of fresh shrimp, pickled shrimp and creole cooked shrimp by plane to retail outlets in Detroit.

Heads Whitemarsh For Penn Salt

Dr. W. A. LaLande, Jr., has been appointed Director of Whitemarsh Research Laboratories of the Pennsylvania Salt Manufacturing Co., Dr. S. C. Ogburn, Jr., manager of research and development, has announced.

Dr. LaLande, formerly director of research of the Attapulgus Clay Co., and previously a member of the chemistry faculty of the University of Pennsylvania, came to Penn Salt in 1944 as director of the research division. About 100 technicians are employed at Whitemarsh developing improved products for a variety of industries.

Big New Plant For Laminated Forms

A $5,000,000 factory, designed to be the largest and most modern pulp and plastics laminating plant in the country, has been put into operation by General Electric Co., Plastics Division, at Coshocton, Ohio. More than 100 presses have been installed.

The new plant is replacing present General Electric facilities for manufacture of laminated materials at Lynn, Mass. It will consist of three buildings with the principal factory building comprising 235,820 sq. ft. Largest press will be a 5000-ton machine capable of producing laminated sheets 50 by 100 inches. It was built by Bethlehem Steel Co. Another giant press will form sheets 30 by 110 in. while other presses will range from 10 to 1800 tons.

Bulkley, Dunton Warehouse In New Haven

The establishment of a new warehouse in New Haven, Conn., and the expansion of the company's service facilities in Southern Connecticut is announced by Bulkley, Dunton & Co., Inc., paper distributors. The new warehouse and enlarged sales offices are at 692 Campbell Ave., West Haven, Conn. William A. Rutz continues as manager of the New Haven branch.

WORLD'S LARGEST HEMLOCK?

Where Oscar Tittle holds his hat, this hemlock measures 19 ft. 9 in. in circumference.

Cut for Oregon Pulp & Paper Co., Salem, Ore., where it made sulphite bond, glassine and greaseproof papers.

It came from Jordan Log Co., 16 mi. south of Tillamook, Ore. Mr. Tittle is manager of the company.

Haner's Boat Damaged

A 45-mile northwest wind which beat into Bellingham, Wash., destroying 22 boats, came close to sinking the new 26-foot cruiser "Gertie" belonging to Vic Haner, plant engineer of Puget Sound Pulp & Timber Co. A larger craft nosed into the "Gertie," breaking several feet of her rail.

Hummel-Ross Sale To Continental Okayed

Sale of assets of the Hummel-Ross Fibre Corp. plant in Hopewell, Va., to the Continental Can Co. and reorganization of the company was voted by 80 per cent of stockholders of Hummel-Ross.

Resident Engineer

D. D. Reeve has been appointed resident engineer of the Abitibi Power & Paper Co.'s Fort William mill.

Maybe Sulfite Yeast Can Be Made for 8c Lb.

The Oregon State College (yeast research project authorized by the National Council for Stream Improvement (of the Pulp, Paper and Paperboard Industries) Inc., has not yet determined the size of suitable feeding experiments and preliminary design of a pilot plant.

Preparation of bibliography, a patent survey and summation of data in an economic survey of protein feed shortages as balanced against Northwest annual yeast production have been completed.

Yeast from sulfite liquors can be produced at less than 8 cents per pound if operational magnitude suffices, preliminary information indicates.

Project work is being carried on by R. C. Ross, engineer, a former student at O. S. C., Harvard and M.I.T. and wartine lieutenant (j.g.) in the U. S. Navy.

New Technical Assistant

Bernard W. Burgess has been appointed technical assistant, Canadian Pulp and Paper Association, Montreal, succeeding John Evans, recently appointed technical director for Red Rock division of Brompton Pulp & Paper Co.

Russ de Lopez Named

Russell de Lopez, traffic manager for Puget Sound Pulp and Timber Co., has been appointed chairman of the traffic section of the Bellingham (Wash.) Chamber of Commerce.